

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 002.000.2
 Modify existing Task Number

Task Title: Program Management Office

Planned Start Date: October 01, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task provides the necessary on-going operations support services for the planning, management, and administration of the necessary actions and activities required for the ACITS2 Project Management Office (PMO). The Task encompasses the Project Management Office's activities for the first year of the ACITS2 contract. The Performance and Schedule deliverables assigned are reflective of the major contract deliverables that are directly associated with PMO.

The task will maintain and update standard operating procedures to govern and meet all of the requirements for planning, managing, reporting, controlling and delivering of products and support services under the delivery order. Quality and timeliness of deliverables coupled with a concentrated focus on Cost Management is critical and a major focus of the PMO oversight functions.

The costs associated with this task are allocated across all subtasks.

This task will also provide administrative, financial, and customer service support to Ames Consolidated Information Technology Services 2 (ACITS2) Contract. The scope of the activities includes data entry and analysis support for the financial tracking and financial reporting of the ACITS2 contract. Duties will include responsibility for the day-to-day service evaluation of current business model and proposing new business models, defining and implementing policies and procedures. It also includes the requirement to generate the monthly financial reports and provide notification and access to the Task Requesters and Financial Managers. The tracking

and reporting will include contract labor hours, labor costs, ODC costs, and task funding as it relates to the ACITS2 contract. The support includes:

- A. Monitor and maintain financial and administrative status for all Task Order Documents (TODs)
- B. Review and track the TODs to ensure appropriate approvals of management and oversight officials has been obtained. Enter the relevant data from the TOD into ACITS2 Financial Management System after the TOD is approved.
- C. Track, control, process and manage Task documentation in ACITS2 Task tracking spreadsheet and maintain hardcopy of signed and approved TODs for the duration of the contract.
- D. Track, control, process and manage Service Request's (SR's) financials electronically and hard copy.
- E. Review the SRs and enter data in Solomon "Serv A" and Ames SAP financial system via the live PR.
- F. Load the Contract's cost data from the 533M into Solomon "Serv A" and Ames SAP financial system Contractor Cost Report (CCR) extension after COTR approval.
- G. Download Month-End Task and Subtask Financial Report in PDF format.
- H. Notify current Task Requesters' of negative balances. Follow escalation process for those Task Requesters' who fail to fund their task after the initial notification.
- I. Reconcile entries/data between the ACITS2 Financial Management System and SAP each month and at the year end.
- J. Review and analyze the ARC SAP/CCR reconciliation discrepancy report and provide data in an Excel spreadsheet, which entails the download of 533 data (run monthly accruals) in Solomon after COTR approval. Assess the validity of the accruals with the Serv Manager and run and distribute the monthly reports with COTR approval.
- K. Respond to requests from the ACITS2 COTR(s) for statistics and /or reports regarding the status of documentation.
- L. Respond to requests from the ACITS2 COTR(s) for statistics and /or reports regarding the status of financial data.
- M. Respond to customer inquiries regarding but not limited to the status of their task order and funding level.
- N. Within one day of receipt of the SR, the staff will enter the SR's data, which includes the Task number and SR's financial data, in ACITS2 Financial Management System. Next the SR information is to be placed into the live SAP PR where the funds are committed. The SR requester is to be contacted immediately if there are issues to be resolved.

Hours of operations for the Contract Financial Data Management Office of this task will be 7:30 AM to 4:30 PM, Monday through Friday, excluding Federal Holidays.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
 - 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 002

Modification Number: 001

Task Title:	Program Management Office
Planned End Date:	July 31, 2010
Task Requester Name:	Kirsten Nagel

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through July 31, 2010. Performance Deliverables to provide Monthly Financial Reports, PD#8 through PD#13, were added to the task.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 102.000.2
 Modify existing Task Number

Task Title: FB and BPC Programs System Administration and Media Support

Planned Start Date: October 01, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task is to provide technical support for the Fundamental Biology and Biomolecular Physics and Chemistry Programs at NASA/Ames Research Center.

System administration support will include:

- Software and hardware installation and upgrade
- Troubleshooting system and application problems
- User support
- Coordination with Center-wide computer service providers (mail, network, etc.) for resolution of problems
- Regularly scheduled backups using Retrospect
- Server maintenance, Retrospect and any future group servers
- Maintenance of computer security

Seminar series support will include:

- Identification of AV requirements of seminar speakers
- Equipment availability
- Coordination with GroundStation (RF, audio) as needed
- Videotaping

Videoconference support will include:

- Coordination with participants and Multipoint Controller Unit (MCU)
- Media support to participants
- Maintenance of equipment with software upgrades as they become available

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 102

Modification Number: 001

Task Title:	FB and BPC Programs System Administration and Media Support
Planned End Date:	January 31, 2010
Task Requester Name:	Elwood Agasid

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to provide additional desktop and server computer support required in preparation for the upcoming Operationally Response Space conference. The task will also assist with the setting up of a temporary informational website required for the conference.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 102

Modification Number: 002

Task Title:	Mission Design Division Support
Planned End Date:	July 31, 2010
Task Requester Name:	Elwood Agasid

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task thru July 31, 2010. This modification will rename the task from FB and BPC Programs System Administration and Media Support to Mission Design Division Support.

This modification will transition the Mission Design Center support work from Task 356 and will be a re-baseline of the combined tasks. The work to be transitioned will be included as the special requirement below.

This modification will increase the budget for specialty subs and material, and also provides clarification to the ODC table. In addition, this modification will make the following changes highlighted in bold as follows:

This task is to provide technical support for the Fundamental Biology and Biomolecular Physics and Chemistry Programs, **the Nanosatellite Mission Office and supporting engineering (RE) and design/research (RD) branches** at NASA/Ames Research Center. **In addition this task will provide support to the Mission Design Center (MDC) systems by ensuring network stability, database administration and data exchange integrity, as well as to perform general systems maintenance and timely MDC software installation and upgrades.**

The task is expected to maintain supported systems and building wide resources, such as printers and servers. For the supported systems this represents the system administration tasks to ensure that the systems are available to the users at a high percentage of uptime. The support may require increased coverage in times of pre-launch and post-launch of missions. These system administration tasks include:

- **OS installations, upgrades, patching, FDCC and CIS compliance**
- **Application software installation, upgrades, and patching to an extent, depending on system and user needs**
- Troubleshooting system and application problems
- **User support including support for students, interns, collaborators from other centers as well as visitors**
- **User account management**
- **Support for new hardware acquisition**
- **Coordination with Center and Agency wide computer service providers (mail, network, etc.) for resolution of problems**
- **Regularly scheduled backups using Retrospect**
- **Maintenance for existing and any future group and development servers**
- Maintenance of computer security
- **Coordination of network installations, add, moves and changes**

Seminar series support will include:

- Identification of AV requirements of seminar speakers
- Equipment availability
- ~~Coordination with Ground Station (RF, audio) as needed~~
- Videotaping

Videoconference support will include:

- Coordination with participants and Multipoint Controller Unit (MCU)
- Media support to participants
- Maintenance of equipment with software upgrades as they become available

This modification will transition the Mission Design Center support work from task 356 and will be a re-baseline of the combined tasks. The work to be transitioned will include:

Special Requirement:**MDC Systems Support**

The task will be required to support the MDC on a 24x7 rotation approximately one month out of the year. During this time, the response time will be set at one hour. At all other times, the regular support model should apply.

System Coding Support

The task will provide system level coding support as requested, to the MDC. This will include meeting with the MDC groups to understand the requirements of the design and coding effort and providing an estimate of the effort. After review and approval of the requirements and effort, the task will provide the necessary design and coding support.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 102

Modification Number: 003

Task Title:	Mission Design Division Support
Planned End Date:	September 30, 2010
Task Requester Name:	Elwood Agasid

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
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OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance through September 30, 2010.

The contractor shall perform development and integration of software and hardware for the following types of systems:

- Flight control
- Active Inceptor
- Servoactuators
- Navigation
- Guidance
- Cockpit displays
- Data acquisition
- Telemetry
- Post-flight data processing

The contractor shall have a detailed working knowledge of automated code generation tools, in particular the MathWorks® Simulink® Real-Time Workshop Embedded Coder. The code generation tool will be used primarily for flight control software development but will be extended to navigation and guidance software.

The contractor shall have an extensive background in rotary-wing, and desirably, in fixed-wing flight control system analysis, design, and synthesis.

The contractor shall have a firm grasp of fly-by-wire electrohydraulic servoactuator and hydraulic systems that constitute a key element of the aircraft research flight control system.

The contractor shall have a firm grasp of real-time operating system concepts, e.g., taxonomy of real-time system architectures, real-time synchronization protocols, and timing and analysis of periodic tasks. The contractor shall also be familiar with state-of-the art testing and debugging methodologies and techniques.

The contractor shall have a firm grasp of software development tools for the myriad platforms, languages, and operating systems used on the research helicopters, viz., Windows, Linux, IRIX, Solaris, VxWorks, C, C++, Fortran.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 110

Modification Number: 001

Task Title:	Rotorcraft Flight Research and Development
Planned End Date:	July 31, 2010
Task Requester Name:	Ernesto Morales, III

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 110

Modification Number: 002

Task Title:	Rotorcraft Flight Research and Development
Planned End Date:	September 30, 2010
Task Requester Name:	Ernesto Moralez, III

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to September 30, 2010. This modification also removes all ODCs.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 115.000.2
 Modify existing Task Number

Task Title: Space Biosciences Division (SC) Computer System Support
Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010
ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The task is responsible for the following:

- a. Making sure all users complete an Account Request Document approved by a Government management official responsible for the individual (manager, sponsor, task manager, etc.) for all user accounts.
- b. Promptly disabling access to a user’s account if the user is identified as having left the Center, changed assignments, changed contracts, or completed work on a grant, or as no longer requiring system access. Written authorization will be required from the Government management official, who originally authorized the account, to reactivate the user’s account.
- c. Granting accounts only to individuals who have had the appropriate personnel screening. The Center IT Security Manager will provide a process for verifying that appropriate screening has been completed and that the individual is eligible to be issued an account.
- d. Granting accounts to foreign nationals without permanent resident alien status only with prior approval by the Center Chief of Security (CCS).
- e. Performing annual self-inspections of their systems and reporting the findings to their line managers and the cognizant organizational Computer Security Official (CSO) or designee. The Center IT Security Manager will provide guidance for conducting self-inspections.

- f. Reporting IT security incidents.
- g. In response to an IT security incident, taking necessary actions to prevent further damage to their systems and documenting their actions.
- h. Identifying personnel who will be responsible for systems if an IT security incident requiring immediate attention occurs when the System Administrator is absent. The names and contact information for these personnel will be provided to their management and their organizational CSO.
- i. Periodically using tools to verify and/or monitor compliance to password guidelines.
- j. Using IT security tools to assist in detecting modifications to the system and monitoring audit logs.
- k. Ensuring that security controls are in place and functioning.

In addition to the security requirements, there are typically requirements in the form of:

- Installing and configuring computer systems and networks, updating them as necessary, and keeping them running properly on a day-to-day basis.
- Managing users and user accounts, including both the computer-related aspects of creating and maintaining user accounts and systems, and responding to user requests, questions, and problems.
- Taking care of peripheral devices attached to the various computer systems (e.g., printers, tape drives, uninterruptible power supplies) as well as adding or removing them as needed.
- Overseeing regular system backups
- Monitoring system and network activity in order to quickly detect any problems related to system security, performance, or general functioning that may arise, and then responding appropriately to anything found

The objective of this task is to provide a range of systems administration services and technical support to Code SC. The specific scope and nature of these services and support are further defined in this section.

Specific Task Requirements

Code SC requires a combination of systems administration services and technical support for its information resources. These requirements may include supporting desktop systems, supporting server systems, handling support requests, and addressing custom/project specific needs. It is possible that there may be no requirements for one or more of these categories at any given point in time.

System Administration Services

The primary purpose of this task is to provide systems administration and systems engineering support. This support may address requirements for desktop systems, laptop systems, and/or server systems.

Desktop Support

The following services will be provided for the desktop computers:

- Upgrading of operating systems, including appropriate patches to meet NASA/Center minimum configuration standards
- Upgrading of NASA/Center standard COTS software (i.e., Microsoft Office, email clients, web browsers, Norton Antivirus and Informed Filler)
- Performing computer, peripheral, and network hardware and software installations
- Establishing and maintaining network accessibility via the primary network interface (e.g., IP, DNS, DHCP, etc.)
- Conducting IT security checks, applying security patches, and performing system/data recoveries after a break-in
- Performing routine administration of systems (e.g., account management, file system management, system performance tuning, printing, etc.)
- Providing system problem diagnostics and crash recovery
- Performing regular backups of end-user data; backups will be performed five days a week with six week retention period for the data
- Coordinating/facilitating hardware maintenance calls

Laptop Support

The following services will be provided for the laptop computers:

- Upgrading of operating systems, including appropriate patches to meet NASA/Center minimum configuration standards
- Upgrading of NASA/Center standard COTS software (i.e., Microsoft Office, Web Browsers, email clients and Norton Antivirus)
- Performing computer, peripheral, and network hardware and software installations
- Establishing and maintaining network accessibility via the primary network interface (e.g., IP, DNS, DHCP, etc.)
- Installing, configuring, diagnosing, and upgrading the communication and security software required to establish remote connections to the Center and organization information resources; this support does NOT include establishing connectivity with ISPs or off-site support requests
- Conducting IT security checks, applying security patches, and performing system/data recoveries after a break-in
- Performing routine administration of systems (e.g., account management, file system management, system performance tuning, printing, etc.)
- Providing system problem diagnostics and crash recovery
- Performing regular backups of end-user data; backups will be performed five days a week with six week retention period for the data
- Coordinating/facilitating hardware maintenance calls

Server Support

The following services will be provided for the server computers:

- Upgrading of operating systems, including appropriate patches to meet NASA/Center minimum configuration standards
- Performing computer, peripheral, and network hardware and software installations
- Establishing and maintaining network accessibility via the primary network interface (e.g., IP, DNS, DHCP, etc.)
- Conducting IT security checks, applying security patches, and performing system/data recoveries after a break-in
- Performing routine administration of systems (e.g., account management, file system management, system performance tuning, printing, etc.)
- Providing system problem diagnostics and crash recovery
- Performing regular backups of end-user data; backups will be performed five days a week with six week retention period for the data
- Coordinating/facilitating hardware maintenance calls

Printer Support

Provide printer support for individual applications, networking, cartridge change-outs and other maintenance, and troubleshooting operations as needed.

Technical Support

Support Requests

The Task will provide resolutions to support requests during the hours of 0730 – 1600, Monday through Thursday (excluding Government holidays).

All service requests will receive an 16 business hour acknowledgment from the support staff by either phone, email or in person; the severity is defined as:

Severity	Definition	Examples
Critical	Customer unable to conduct business	System Failure Data Corruption Network Outage
High	Customer Business impaired	Recoverable failures Unable to Backup Data Degraded System or Network Performance
Routine	Customer Business Affected	Compiler Error Intermittent Non-critical Bug

An initial response is defined as contact (phone or email) with the person reporting the problem. Initial contact may result in a solution, workaround or an appointment with the user to work on the problem

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 115

Modification Number: 1

Task Title:	Space Biosciences Computer Systems Support
Planned End Date:	7/31/2010
Task Requester Name:	Terry Lusby

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 115

Modification Number: 002

Task Title:	Space Biosciences Computer Systems Support
Planned End Date:	9/30/2010
Task Requester Name:	Terry Lusby

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to add 15 additional desktops and 5 printers to the computer support requirements and extend the period of performance to September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 121.000.2
 Modify existing Task Number

Task Title: Office Systems Support

Planned Start Date: October 01, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this Task is to provide systems and user support for the Aero Flight Dynamics Directorate (AFDD) Automation Support Team. The AFDD performs research and development in the field of rotary-wing aircraft, human factors, simulation, unmanned vehicles, and related fields. This task will also support flight-testing on the UH-60 and OH-58 aircraft, wind tunnel testing in the 7x10 and 40x80 wind tunnel, operations of the preliminary design team, and supporting functions.

Specific Task Requirements

- Coordinate with property management personnel to carry out procedures related to property management of computer systems, including excessing of old equipment and checking out systems for off-site use
- Prepare old equipment for excess
- Provide system administration for Macintosh, Windows, UNIX and Linux systems (hardware and software)
- Provide technical support for computer users
- Develop and make available “cheat sheet” style user guides upon request
- When necessary, route problems to other appropriate personnel (e.g., other members of the Automation Support Team, other support staff, vendors, etc.)

- Provide support for the Automation Support Team Patchlink server, both in maintaining the server and utilizing it to run reports and push patches as needed
- Provide regular backups for supported systems
- Provide computer security support following Army and/or NASA guidelines, as directed

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 121

Modification Number: 001

Task Title:	Office Systems Support
Planned End Date:	July 31, 2010
Task Requester Name:	Art Ragosta

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 126.000.2
 Modify existing Task Number

Task Title: Computer Systems Support – Code TSA

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The System Administrator is responsible for the following:

- a. Making sure all users are approved by a Government management official responsible for the individual (manager, sponsor, task manager, etc.) for all user accounts.
- b. Promptly disabling access to a user's account if the user is identified as having left the Center, changed assignments, changed contracts, or completed work on a grant, or as no longer requiring system access. Written authorization will be required from the Government management official, who originally authorized the account, to reactivate the user's account.
- c. Granting accounts only to individuals who have had the appropriate personnel screening. The Center IT Security Manager will provide a process for verifying that appropriate screening has been completed and that the individual is eligible to be issued an account.
- d. Granting accounts to foreign nationals without permanent resident alien status only with prior approval by the Center Chief of Security (CCS).
- e. Performing annual self-inspections of their systems and reporting the findings to their line managers and the organizational Computer Security Official (CSO) or designee. The Center IT Security Manager will provide guidance for conducting self-inspections.
- f. Reporting IT security incidents.

- g. In response to an IT security incident, taking necessary actions to prevent further damage to their systems and documenting their actions.
- h. Identifying personnel who will be responsible for systems if an IT security incident requiring immediate attention occurs when the System Administrator is absent. The names and contact information for these personnel will be provided to their management and their organizational CSO.
- i. Using IT security tools to assist in detecting modifications to the system and monitoring audit logs.
- j. Ensuring that security controls are in place and functioning.

In addition to the security requirements, there are typically requirements in the form of:

- Installing and configuring computer systems and networks, updating them as necessary, and keeping them running properly on a day-to-day basis.
- Managing users and user accounts, including both the computer-related aspects of creating and maintaining user accounts and systems, and responding to user requests, questions, and problems.
- Taking care of peripheral devices attached to the various computer systems (e.g., printers, tape drives, uninterruptible power supplies) as well as adding or removing them as needed.
- Overseeing regular system backups
- Monitoring system and network activity in order to quickly detect any problems related to system security, performance, or general functioning that may arise, and then responding appropriately to anything found

Specific Task Requirements

System Administration Services

The following services will be provided for the server computers:

- Upgrading of operating systems, including appropriate patches to meet NASA/Center minimum configuration standards
- Performing computer, peripheral, and network hardware and software installations
- Establishing and maintaining network accessibility via the primary network interface (e.g., IP, DNS, DHCP, etc.)
- Conducting IT security checks, applying security patches, and performing system/data recoveries after a break-in
- Performing routine administration of systems (e.g., account management, file system management, system performance tuning, printing, etc.)
- Providing system problem diagnostics and crash recovery
- Performing regular backups of end-user data; monthly full backups and daily incremental backups with an 8 week retention period for the data
- Coordinating/facilitating hardware maintenance calls

Technical Support

Computer systems environments are becoming increasingly complex in part because of new software technologies, and the interfacing effects of networking technologies. With these increased complexities comes the need to provide additional support to the end-users. This section defines those support elements that the Task must provide.

Support Requests

The Task will provide resolutions to support requests during the hours of 0800 – 1700, Monday through Friday (excluding Government holidays). For problem reports, the Task is expected to provide a responsiveness that is based on the severity of the situation; the severity is defined as:

Severity	Definition	Examples
Critical	Customer unable to conduct business	System Failure Data Corruption Network Outage
High	Customer Business impaired	Recoverable failures Unable to Backup Data Degraded System or Network Performance
Routine	Customer Business Affected	Compiler Error Intermittent Noncritical Bug

An interim or permanent solution will be found as quickly as possible, given the severity level. An interim resolution is defined as a corrective action that either temporarily (a work-around is found while the root cause is addressed) or permanently mitigates the identified problem.

Additional support

The task will keep abreast of new technologies, participate in long and short term planning for computing capability upgrades, make recommendations for specific purchases, and help estimate costs.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 126

Modification Number: 001

Task Title:	Computer Systems Support – Code TSA
Planned End Date:	July 31, 2010
Task Requester Name:	Aga Goodsell

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 126

Modification Number: 002

Task Title:	Computer Systems Support – Code TSA
Planned End Date:	September 30, 2010
Task Requester Name:	Aga Goodsell

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 139.000.2
 Modify existing Task Number

Task Title: Code SG/SS Scientific Systems and Network support

Planned Start Date: October 01, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of the task is to provide computer system administration, user and server support for subscribed UNIX, LINUX, Macintosh and PC systems in the two divisions and five branches residing in Building N245 and N239, and coordination of network and security support for N245. This work includes long and short term planning for networking, computing and coordination of all aspects of the support services.

The task is expected to maintain functional systems that are designated as subscribed systems or building-wide resources, such as printers and servers. For the included systems this represents the system administration tasks to ensure that the systems are available to the users at a high percentage of uptime. These system administration tasks include

- OS installations and upgrades, patches, FDCC and CIS compliance
- problem troubleshooting
- application software installation, upgrades and troubleshooting to a limited extent, depending on the system
- security support
- backups
- user account management
- user support

- documentation
- support for new hardware acquisition
- coordinating hardware and network fixes
- printer support
- x-term support
- coordination of network installations, adds, moves and changes

Backups and data restores are completed on a subscription basis, as approved by the Task Requester, and are not included by default. Therefore, systems with no backups are not subject to Performance Deliverables PD#5 thru PD#8. System data backups and data restores for Code SSX systems are also not included except for up to 10 systems as defined by the Task Requester.

In addition to the system security support mentioned above, building-wide security support has become a very significant responsibility for the task. Work includes helping define policies for the building consistent with NASA policies, staying abreast of new vulnerabilities and notifying building residents and responding to agency initiatives. It also includes conducting frequent scans of systems for security vulnerabilities, as well as scanning systems before they are allowed to connect to the building network, and assisting system administrators with correcting vulnerabilities. Management includes understanding of NASA security policies and planning and implementing procedures to help minimize computer vulnerabilities. Upon request, assistance will be provided in documenting security plans, contingency plans and risk assessments. Support of various Code S CSA's is also required, which includes Security Plan policy and procedure information dissemination and coordination.

A high degree of understanding of the network (over 300 users) that has been established by the users in the building is required. In addition to the network support mentioned above, the task is expected to provide building-wide network support for larger projects. Examples include building rewire planning and coordination, short-term planning and coordination of network upgrades, and dealing with problems and issue related to being on the ARCLAN network.

The overall management of this task requires an ability to coordinate the functioning of various computer servers, print servers and other devices. This management part of the task also requires the maintenance of network databases, the coordination of various accounting systems, assistance with developing computer support budgets and reporting systems, and tracking expenses. Short and long range technical planning of computer upgrades for the building is also a responsibility. The Task developed and continues to support a computer lab for building users and their visitors. The Task is responsible for keeping the N245 user community informed via email, hardcopy and the web of issues that could affect computing services. The staff provides an essential role in the development of systems in the building, in concert with the User Advisory Group mentioned above, and helps facilitate UAG activities.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 139

Modification Number: 001

Task Title:	Code SG/SS Scientific Systems and Network support
Planned End Date:	July 31, 2010
Task Requester Name:	Christine Scofield

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 139

Modification Number: 002

Task Title:	Code SG/SS Scientific Systems and Network support
Planned End Date:	July 31, 2010
Task Requester Name:	Christine Scofield

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to expand the technical expertise and support for Code S CSA's. This may include information dissemination, education and implementation of new policies and tools, research and investigation of the potential impact to science, creation and distribution of tools for patch management.

1. Provide Mac and Windows system administration and support. Work includes tasks such as the following:

- Provide regularly scheduled backups of user systems
- Restore files as needed.
- Evaluate system performance. Recommend and implement improvements.
- Install and upgrade operating system and applications software.
- Facilitate hardware repairs.
- Set up and configure new systems.
- Perform preventive maintenance on systems.
- Maintain Database records in tracking database.

2. Set up and maintain servers

- Maintain Apple Share Server for distribution of files and applications to Mac OS users.
- Maintain intranet Web server.
- Maintain two Retrospect Back-up Servers

3. Implement and maintain ADP Security

- Comply with Ames security policies.
- Install virus detection software on systems and distribute updates.
- Instruct users on good security practices.
- Conduct security scans

4. Provide informal training, assistance and consultation

- Evaluate and research user hardware, software and network problems.
- Solve problems or refer users to the appropriate organization for resolution
- Provide informal hands-on training and orientation to users.
- Develop scripts and documentation to assist in the use of software applications.
- Make assessments of user requirements and recommend new purchases, as needed
- Identify information resources for users and instruct users on how to access them.

5. Coordinate network support

- Coordinate with building network administrator for additions or modifications to network connections.
- Coordinate network and repairs with the building network administrator.
- Assist users with network functions such as file sharing, terminal emulator software, email and Web applications

6. Excess old, broken and outdated equipment

- Prepare old hardware to be sent to property for disposal.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 142

Modification Number: 001

Task Title:	Bioengineering Branch Computer Support
Planned End Date:	July 31, 2010
Task Requester Name:	Mark Kliss

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 142

Modification Number: 002

Task Title:	Bioengineering Branch Computer Support
Planned End Date:	September 30, 2010
Task Requester Name:	Mark Kliss

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
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OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance through September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 149.000.2
 Modify existing Task Number

Task Title: Flight Deck Display Research (FDDRL) Laboratory Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

A.2.1 Specific task requirements:

This task supports the Flight Deck Display Research (FDDRL) Laboratory under the Human Systems Integration Division, Code TH, at NASA Ames Research Center.

The goal of this task is to:

1. Provide support for the development of:
 - The cockpit situational display (CSD) part-task simulator.
 - Air-Ground simulation experiments
 - Statistical analysis of data collected from the above experiments.
2. Support the development of weather related research.
3. Support the Next Generation Air Traffic System Program (NextGen).
4. Support the JPDO Safety Analysis.
5. Support the Integrated Intelligent Flight Deck Project.
6. Support integration of the CSD into the Laboratory's 777 simulator, to include the support of a commercial pilot domain expert to participate in testing of the simulation.

7. Componentize the MACS FMS (cFMS), including Trajectory Synthesis subsystem, into a stand-alone package that can be utilized by FDDRL systems through one or more documented Application Programming Interfaces (API):
 - Estimate the scope of the effort to componentized the MACS software.
 - Determine the feasibility and effort to provide the FMS outputs as aircraft control settings, and identify possible alternative output sets.
 - Identify the appropriate architecture and data structures to comprise the API.
 - Provide documentation on the as-built API and the relevant data structures.
8. Support enhancement and extension of existing FDDRL weather-related capabilities:
 - Replace the legacy Weather Data Acquisition subsystem with a more robust, maintainable, and user-friendly system.
 - Enhance the existing Weather Scenario Generator with new capabilities, including wind data, synthesizing predicted radar, and importing/exporting MACS weather files.
 - Add a 3D interactive weather scenario editor to allow visualization and manipulation of location, orientation and values of weather products.
 - Build a software display that simulates an airborne weather-radar view of weather data as output from the Weather Scenario Generator or Interactive Weather Scenario Editor.

Specific experiment / development goals will be developed by Task Requester and Perot Task Manager on a Quarterly basis. For item 8, above, it is anticipated that this work will be a multiple year effort.

A.2.2 Specific Reports and Meetings:

Task Manager will meet with the Task Requestor monthly to provide status on technical progress and cost.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 149

Modification Number: 001

Task Title:	Light Deck Display Research Laboratory (FDDRL) Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Walter Johnson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend task period of performance to July 31, 2010. Add the following requirements for MACs (Multi Air Craft Simulator):

1. Support Design Concepts for Integration of Metron’s Arrival Algorithms into MACS and CSD (Cockpit Situational Display)
2. MACS Ac List Enhancements for Pseudo-pilots
3. MACS MCP Knob Enhancements
4. MACS Scheduler Enhancements

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 149

Modification Number: 002

Task Title:	Light Deck Display Research Laboratory (FDDRL) Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Walter Johnson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to add the following requirements for Super Density Operations (SDO) Human-in-the-Loop (HITL) software support:

SDO occurs in the airspace surrounding a terminal area or metroplex in order to achieve higher throughput for arrivals and departures, while accommodating overflights as appropriate. In previous SDO trade space studies, structured as well as unstructured routing approaches have been explored in algorithmic studies. Structured routing approaches include tree-based routing as well as tubes or flow corridors. Unstructured routing approaches include Free Flight, which

has been well-studied in the literature as well as with HITL experiments. Requirements for support are to set up a study of a tree-based SDO routing strategy in a HITL experiment.

Requirements:

Design, develop, and deliver a HITL simulation experiment that tests an integrated SDO operational concept to be used in NASA research simulations. Define all key variables and constraints for the SDO HITL software. Deliverables include: all software, a technical report detailing the API (Application Programmer Interface) specification, description of all externally-visible parameters, variables, and constants used in the software, and supporting descriptions or graphics as appropriate.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 149

Modification Number: 003

Task Title:	Light Deck Display Research Laboratory (FDDRL) Support
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Walter Johnson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the period of performance to November 30, 2010. No changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 154.000.2
 Modify existing Task Number

Task Title: Mars General Circulation Model

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

A.2.1 Purpose

The Mars General Circulation Model (MGCM) is a numerical algorithm that solves the primitive equations of meteorology assuming forcing conditions appropriate to the planet Mars.

The primary work for this task involves:

- Running, maintaining, and documenting the current version of the MGCM
- Modifying and testing the current version of the MGCM
- Developing and maintaining graphical analysis tools for diagnosing MGCM results

A.2.2 Specific Task Requirements

- Running, maintaining and documenting the current version of the MGCM
- Archiving and delivering MGCM output
- Maintaining a library of MGCM runs and a log file describing the particulars of each run
- Implementing (coding) and testing upgrades to the MGCM including:
 - Improving the speed of the code
 - Incorporating upper atmosphere physics into MGCM
- Designing, testing and documenting new analysis tools
- Providing MGCM output products and supporting documentation

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 154

Modification Number: 001

Task Title:	Mars General Circulation Model
Planned End Date:	July 31, 2010
Task Requester Name:	Jeffery Hollingsworth

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 154

Modification Number: 002

Task Title:	Mars General Circulation Model
Planned End Date:	November 30, 2010
Task Requester Name:	Jeffery Hollingsworth

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to November 30, 2010.

- g. In response to an IT security incident, taking necessary actions to prevent further damage to their systems and documenting their actions.
- h. Identifying personnel who will be responsible for systems if an IT security incident requiring immediate attention occurs when the System Administrator is absent. The names and contact information for these personnel will be provided to their management and their organizational CSO.
- i. Periodically using tools to verify and/or monitor compliance to password guidelines.
- l. Using IT security tools to assist in detecting modifications to the system and monitoring audit logs.
- m. Ensuring that security controls are in place and functioning.

In addition to the security requirements, there are typically requirements in the form of:

- Installing and configuring computer systems and networks, updating them as necessary and keeping them running properly on a day-to-day basis.
- Managing users and user accounts, including both the computer-related aspects of creating and maintaining user accounts and systems, and responding to user requests, questions, and problems.
- Taking care of peripheral devices attached to the various computer systems (e.g., printers, tape drives, uninterruptible power supplies) as well as adding or removing them as needed.
- Overseeing regular system backups
- Monitoring system and network activity in order to quickly detect any problems related to system security, performance, or general functioning that may arise, and then responding appropriately to anything found
- Installing, configuring and maintaining servers as requested by the Task Requester.
- Monitoring VITs equipment for working status

The objective of this task is to provide a range of systems administration services and technical support to Codes RE and its subdivisions, RCE, JC, Constellation Data Systems and Architecture, Kepler Business Office, and the Code D Chief Engineer's Office. The specific scope and nature of these services and support are further defined in this section.

The groups listed above require a combination of systems administration services and technical support for their information resources. These requirements may include supporting desktop systems, supporting server systems, handling support requests, and addressing custom/project specific needs. It is possible that there may be no requirements for one or more of these categories at any given point in time.

The task will also provide analyst support for code staff by monitoring and analyzing data to make recommendations for approaches, methods and procedures for streamlining, and the staff will support training of new database elements. The task will also give recommendations for expenditures to upper management, and will assist in phasing plan creation, monitoring, and variance reporting.

System Administration Services

The primary purpose of this task is to provide systems administration support. This support addresses requirements for non-ODIN desktop and laptop systems.

A limited amount of support is provided for ODIN systems, including installation and upgrade of software not supported by ODIN (e.g. MS Project, ProE).

Computer Support

The following services will be provided for the task:

- Upgrading of operating systems, including appropriate patches to meet NASA/Center minimum configuration standards
- Upgrading of NASA/Center standard COTS software
- Performing computer, peripheral, and network hardware and software installations
- Establishing and maintaining network accessibility via the primary network interface
- Conducting IT security checks, applying security patches, and performing system/data recoveries after a break-in
- Performing routine administration of systems
- Providing system problem diagnostics and crash recovery
- Performing regular backups of end-user data; backups will be performed on a one week cycle with four week retention period for the data
- Coordinating/facilitating hardware maintenance calls
- Installing, configuring, diagnosing, and upgrading the communication and security software required to establish remote connections to the Center and organization information resources; this support does NOT include establishing connectivity with ISPs or off-site support requests
- Installing, configuring and maintaining servers (file sharing, print serving, software licensing, etc.) as requested by the Task Requester.

**Technical Support
Support Requests**

The Task will provide resolutions to support requests during the hours of 0800 – 1700, Monday through Friday (excluding Government holidays).

For problem reports, the Task is expected to provide a certain responsiveness that is based on the severity of the situation; the severity is defined as:

Severity	Definition	Examples
Critical	Multiple Customers unable to conduct business	Server Unavailable Server Failure
High	Customer Business impaired	Recoverable failures System Failure High Visibility Project Support
Routine	Customer Business Affected	Software Installation Software Failure Printer Problem

The expected responsiveness requirements for problem reports are:

Severity	Responsiveness Guideline	Quantity per Month
Critical	Initial response in 4 hours	15
High	Initial response in 8 hours	35
Routine	Initial response in 16 hours	200

An initial response is defined as contact (phone or email) with the person reporting the problem. Initial contact may result in a solution, workaround or an appointment with the user to work on the problem.

Application Support

The task will provide administration and simple end-user assistance in the operation and maintenance of selected applications.

Conference Room Support

The Task will provide support for only the JCM monthly dial-in VITs, the Mission Management Team (MMT) conference room support, and the actual computers in the conference room in buildings N213 and N244. Malfunctioning equipment will be reported to the Task Requestor and repaired upon request.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

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- **Property Location**
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- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 177

Modification Number: 001

Task Title:	System Administration Services for Code P
Planned End Date:	January 31, 2010
Task Requester Name:	Paul Keller

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to guide Code R in getting their Engineering Computer Systems, plan number OA-999-M-ARC-06-1504, through the NASA FISMA Certification and Accreditation (C&A) process, the C&A package update, and the certification and award of an authorization to operate (ATO). This modification is also to reduce the budget for Vendors.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 177

Modification Number: 002

Task Title:	System Administration Services for Code RE
Planned End Date:	July 31, 2009
Task Requester Name:	Paul Keller

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: _____ 177 _____

Modification Number: _____ 003 _____

Task Title:	System Administration Services for Code RE
Planned End Date:	July 31, 2009
Task Requester Name:	Paul Keller

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

No change to requirements

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 179.000.2
 Modify existing Task Number

Task Title: Airspace Operations Laboratory (AOL) Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task will provide support for the Airspace Operations Laboratory (AOL) under the Human Systems Integration Division, Code TH, at NASA Ames Research Center.

The goal of this task is to provide software development/integration/enhancement/testing, hardware integration, data collection and database management for the development of:

- Airspace Operations Laboratory (AOL)
- Enhancements to the Multi-Aircraft Control Simulator (MACS)
- Air-Ground simulation experiments
- Statistical analysis of data collected from the above experiments
- Aircraft Modeling in MACS
- Route construction/analysis and fast-time aircraft simulation
- Systems engineering (support of servers, software developer tools, libraries, applications, systems builds and configurations)

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 179

Modification Number: 001

Task Title:	Airspace Operations Laboratory (AOL) Support
Planned End Date:	July 31, 2010
Task Requester Name:	Nancy Smith

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010. No changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 179

Modification Number: 002

Task Title:	Airspace Operations Laboratory (AOL) Support
Planned End Date:	November 30, 2010
Task Requester Name:	Nancy Smith

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. No changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 182.000.2
 Modify existing Task Number

Task Title: Public Affairs Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.3

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task provides the on-going operations and support services for:

- Public Affairs Web Designer/Curator – Design, develop and maintain websites for the New Ventures and Communications Directorate (Code V) and for outreach and communications-related venues at the center;
- Web Content Writer and Editor Support – Develop information products for the NASA portal, Ames homepage, and Strategic Communications and Education Division publications. Solicit and develop story ideas from research organizations at Ames. Prepare and publish Web products and serve as a facilitator on the Ames Highlight Blog. Write and present material to appeal to various NASA target audiences.
- New media development and implementation support to the Ames New Ventures and Communications organization (Code V) with technology oversight and guidance from the Information Technology Directorate (Code I). The work will include analysis of the use of new media channels and recommend strategies for using these channels to improve the effectiveness and efficiency of Agency communication efforts. The task will also develop, implement, disseminate tools for the approved strategies, in the form of analysis, planning, and support for the various new media initiatives and information technology activities at Ames or throughout the Agency.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 182

Modification Number: 001

Task Title:	Public Affairs Support
Planned End Date:	February 28, 2010
Task Requester Name:	Jerry L. Colen

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to extend the period of performance through February 28, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 182

Modification Number: 002

Task Title:	Public Affairs Support
Planned End Date:	July 31, 2010
Task Requester Name:	Jerry L. Colen

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to extend this task through July 31, 2010. The task is also modified to end the requirement for “New Media Team Support” effective March 3, 2010 and to add the following support requirements:

- Provide iPhone/iPod application development, programming and ongoing support
- Provide desktop (hardware, operating system and application) system administration support for all non-ODIN desktop systems, printers and other devices/peripherals in the division

- Provide server (hardware, operating system, application and peripherals) system administration support for all servers in the division.
- Provide website programming, development and maintenance
- Provide support for IT related tasks involving video/audio editing, robotics, DLN and education systems as needed
- Provide script and database development programming and support
- Assist in the development, support and maintenance of the division IT Security plan

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 182

Modification Number: 003

Task Title:	Public Affairs Support
Planned End Date:	September 30, 2010
Task Requester Name:	Jerry L. Colen

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to extend this task until September 30, 2010. The task is also being modified to provide increased web support for the Kepler project and Aeronautics projects.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 183.000.2
 Modify existing Task Number

Task Title: Program Office Technical Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task provides for specific technical support services and deliverables that are required in the support of the implementation and successful management of the Exploration Technology Directorate.

Elements of this task include:

- Develop and maintain database reporting and tracking systems
- Provide support for Technology and Information Dissemination and Display
- Provide preparation and publication of documents and technical reports

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 183

Modification Number: 001

Task Title:	Program Office Technical Support
Planned End Date:	July 31, 2010
Task Requester Name:	Patti Powell

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task until 7/31/10 and Performance Deliverables PD#6 – PD#13 have been added.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 185.000.2
 Modify existing Task Number

Task Title: Risk Perception in Distributed Team Decision Making

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task will examine how the following factors influence distributed team decision making with potential application to long-duration space missions: Gender and individual composition of the teams, training, and effects of sleep deprivation, task stress, and interpersonal stress on team performance. Develop technologies to monitor crew psychosocial interactions and to predict breakdowns in crew adjustment and performance.

A.2.1 Specific task requirements:

Team Decision Making:

- Laboratory Technical Support
- Design, specification, installation and maintenance of Laboratory including hardware and software.
- Consultation with research staff on technical issues.
- Creation of Audio-Visual and communications data.
- Assistance running experimental crews
- ASRS Report Coding

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 185

Modification Number: 001

Task Title:	Risk Perception in Distributed Team Decision Making
Planned End Date:	July 31, 1010
Task Requester Name:	Dr. Judith Orasanu

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010. There are no changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 185

Modification Number: 002

Task Title:	Risk Perception in Distributed Team Decision Making
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Judith Orasanu

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to Nov 30, 2010. There are no changes to requirements.

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 186.000.2
 Modify existing Task Number

Task Title: Human Centered Systems Laboratory (HCSL) Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goal of this task is to support NASA's Next Generation Air traffic System (NGATS) research, Aviation Safety Program (AvSAFE), and other NASA or FAA programs. Support will include the planning and conducting of simulation studies, the analysis and summarization of the data collected during the studies and the preparation of presentation materials to describe the results of the studies. Also included in the task are the design, development and support of hardware systems and computer programs required to conduct said studies.

A.2.1 Specific task requirements:

Software Support includes all phases of software development, maintenance of existing baseline (legacy or extant) software, integration of purchased simulation software, user support, and documentation.

Hardware support includes design, installation and integration of audio and video equipment, custom fabrication of research hardware, and support for any other hardware associated with the above laboratories (HUD, joysticks, etc.) ATC displays, VDRs etc. Hardware engineering support includes the development phase in the existing design, integration and testing for the upgrade of the HCSL test bed facilities requirement, specifically the new737NG simulator.

Experiment support includes assistance with pre-experiment specification, scenario development, domain expertise (pilot) for scenario evaluation, and support during actual experimental runs (as required by experimental schedule).

Data Analysis support includes pre-experiment consultation, evaluation of data collection methods, verification of data collection methodology by means of pre-experiment sampling, data reduction, data analysis, and assistance with technical problems (as required by experimental schedule).

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 186

Modification Number: 001

Task Title:	Human Centered Systems Laboratory (HCSL) support
Planned End Date:	July 31, 1010
Task Requester Name:	Dr. David Foyle

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010, there are no changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 186

Modification Number: 002

Task Title:	Human Centered Systems Laboratory (HCSL) support
Planned End Date:	November 30, 1010
Task Requester Name:	Dr. David Foyle

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. The following requirements are added:

1) Integrate the Advanced Concepts Flight Simulator (ACFS) Personal Computer (PC) Flight Management System (FMS) and Control Display Unit (CDU) and with Human-Centered Systems Lab (HCSL) FLTz (Flight Z)

2) Support autonomous FMS operations via the HCSL control Triggers/Actions system. FMS preflight configuration and KDFW departure procedures.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION
(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 187.000.2
 Modify existing Task Number

Task Title: Vision Research

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of the Vision Research Task is to support ongoing research in the Vision Science and Technology (VST) Group, as part of the research program of the Human Systems Integration Division at Ames Research Center. The requirements for this support are broad, reflecting the diverse set of research projects conducted by the Principal Investigators in the VST Group, but they fall into two broad categories:

Application Programming and Research Support component:

This involves applications programming in the Apple Macintosh environment to support vision research, integration of low-level display software libraries with Mathematica via MathLink protocols, and assistance in the conduct of vision research.

Systems, web and database component:

This includes design and management of SQL Server databases hosted on Windows computers, design, troubleshooting and maintenance of web applications software, and maintenance lab computer systems and of user accounts, etc. This activity will be supplemental to the systems support provided by the Division.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 187

Modification Number: 001

Task Title:	Vision Research
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Andrew Watson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 187

Modification Number: 002

Task Title:	Vision Research
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Andrew Watson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. No change to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 189.000.2
 Modify existing Task Number

Task Title: Spatial Auditory Displays Laboratory

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task supports the NASA Ames Spatial Auditory Displays Laboratory. This lab provides facilities for psychoacoustic research in spatialized audio. Since the lab and the experiments run therein are very technical in nature, technical support is required for almost all lab activities. Tasks include writing experiment software, lab utilities, and demos, maintaining the audio lab environment, updating systems, and configuring equipment.

As this is a research support task, software development and enhancement will be iterative in nature to correspond to changing research requirements and needs.

A.2.1 Specific Task Requirements

- The open source slab3d (aka “SLAB”) software package originally developed in the Spatial Auditory Displays Lab is to be maintained and extended as needed to support audio, signal processing, and virtual environment work.
- As-needed MATLAB scripts must perform the analysis and signal processing requested and be clearly documented.
- An audio simulation and communication system for a 777 aircraft flight deck simulator will be developed and delivered. Work will include integrating the slab3d virtual acoustic environment into the simulator control system to provide two spatial displays

(captain, co-pilot) and several sound effects channels. Hardware sound reinforcement support will also be provided. slab3d control software will be delivered.

- A continuous wavelet transform (CWT) MATLAB script will be developed. The CWT script, test signals, and an example of use will be delivered.
- Develop experiment control software integrating audio-visual displays and various user interface controllers for “mex2” research project – to include audio/visual/controller apps for experiments, and other prototypes/demos/proof-of-concept development.
- Data management and statistical analysis programs must meet the PI’s specifications. The specifications might describe any of the following: user interface, statistical algorithms, data processing, database management, and data display.
- Documentation should be clear and concise. Consultations should be handled in a thorough and timely manner.
- All experiment components must be readily accessible and organized in a clear and logical manner.
- The lab equipment should be maintained in a functional state. New equipment should be installed, configured, and tested quickly and efficiently. The contractor should demonstrate technical prowess in maintaining equipment and answering questions. Any required documentation should be clear and concise.
- On an as-needed basis, user-interface prototypes employing lab technology (e.g., communications systems) need to be developed and maintained. These need to be robust and professional in quality as they are frequently demonstrated to and used by outside parties.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 189

Modification Number: 001

Task Title:	Spatial Auditory Displays Laboratory
Planned End Date:	January 31, 2010
Task Requester Name:	Dr. Elizabeth Wenzel

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Add requirement for engineering and integration of hardware systems in the Spatial Auditory Displays Laboratory.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 189

Modification Number: 002

Task Title:	Spatial Auditory Displays Laboratory
Planned End Date:	January 31, 2010
Task Requester Name:	Dr. Elizabeth Wenzel

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 189

Modification Number: 003

Task Title:	Spatial Auditory Displays Laboratory
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Elizabeth Wenzel

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. No change to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 192.000.2
 Modify existing Task Number

Task Title: Visual Simulation and Visually Based Control Research

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goal of the task is to develop and evaluate new techniques for visual simulation and visual displays to enhance vehicle control. This will involve developing simulation capabilities, designing and developing display concepts and experimental protocols, general laboratory management, data analysis and report preparation. The simulation capability element will include visual database development, experimental control programs, and data acquisition and preliminary analysis programs. The laboratory management element will include determining hardware, software requirements to meet the other elements, assisting with upgrades, and design, and report preparation. Innovative visual simulation techniques, including virtual windows, head mounted display systems, and custom-designed rendering software will be utilized.

A.2.1 Specific task requirements:

The specific requirements of this task are to provide part-time support:

1. Develop and validate experimental control and data reduction software.
2. Maintain, upgrade, and ensure system back-ups for laboratory software.
3. Maintain and upgrade laboratory hardware configurations.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
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- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 192

Modification Number: 001

Task Title:	Visual Simulation and Visually Based Control Research
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Mary Kaiser

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010 and add the following requirements:

1. Provide systems engineering support to include enhancements of the hardware and research components for the laboratory
2. Provide project management and support for the Space Human Factors Engineering (SHFE) Program to include database management support.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 192

Modification Number: 002

Task Title:	Visual Simulation and Visually Based Control Research
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Mary Kaiser

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. No changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 193.000.2
 Modify existing Task Number

Task Title: Human Eye Movements and Visual Perception

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task will develop, test, and validate software for visual stimulus generation as well as data acquisition and analysis for an eye-movement and visual perception research laboratory (Visuomotor Control Lab). Since the lab and the experiment run are very technical in nature, technical support is required for almost all lab activities. Activities include writing experiment software, lab utilities, and demos, maintaining the lab environment, updating systems, and configuring equipment.

As this is a research support task, software development and enhancement will be iterative in nature, to correspond to changing research requirements and needs during the experiment.

A.2.1 Specific Task Requirements

1. Software protocols written in the TEMPO, ISCAN/ VRG high-level programming languages to run eye-tracker data acquisition and stimulus display.
2. Run human subjects and perform data acquisition for human performance studies. Program and perform data analysis and modeling in a Matlab environment
3. Collect and analyze eye movement and perceptual data from human observers that demonstrate (validate) the correct performance of the acquisition and analysis software.

4. Prepare software documentation that allows researchers to properly use the software and hardware configuration documentation so that facilitate any future modifications to the set-ups.
5. Prepare data figures and text to present research findings.
6. Maintain laboratory capabilities and safety.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 193

Modification Number: 001

Task Title:	Human Eye Movements and Visual Perception
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Lee Stone

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact	<input type="checkbox"/>	<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables	<input type="checkbox"/>	<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	<input type="checkbox"/>	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	<input type="checkbox"/>	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)	<input type="checkbox"/>	<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend period of performance on task to July 31, 2010. No changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 193

Modification Number: 002

Task Title:	Human Eye Movements and Visual Perception
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Lee Stone

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend period of performance on task to November 30, 2010. No changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 194.000.2
 Modify existing Task Number

Task Title: Test Subject Recruitment Office

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task will provide IT database development, and management of the Research Subject Database, and research Test Subject recruitment and scheduling for the Human Systems Integration Division, code TH. This support is a critical aspect of the research being performed in Code TH, as human test subjects are used to not only test software, hardware, and simulation capabilities developed by Perot Systems software engineers, but to participate in experimental studies by NASA researchers where data is collected, analyzed and published.

A large percentage of the support under this task includes IT database development and management activities. The timely recruitment and scheduling of specially qualified human test subjects for use in human factors research experiments conducted by the Division or as authorized by the Task Requestor is critical. These subjects are used as participants in experiments and simulations in which data is collected, and analyzed for both 1) evaluation of the simulation hardware and software, and 2) where data analyses will be used in verification of research hypotheses, and is an essential requirement of research papers and technical publications. Examples of human factors experiments in which human subjects have been used are: flight deck and airspace operations simulations, cockpit display technologies, distributed team decision-making studies, human centered systems studies, vision research, and spatial auditory displays research.

The Test Subject Database contains critical information that allows subjects to be chosen based on the study protocols. Continual updates to this database is critical to the work being supported.

A.2.1. Specific Task Requirements

The goal of this task is to:

- 1) Division's Test Subject Database: This database contains highly relevant, very specific information on human subjects by classification (commercial pilot, air traffic controller, regular, etc) and all details related to their qualifications (contact data, type of aircraft, glass cockpit, flight hours, Captain, First Officer, company, right/left handed, vision, etc). Task requirements are to maintain, verify, and update this critical database to allow timely and accurate recruiting of qualified human subjects.
- 2) Provide human subjects for research studies conducted by Principal Investigators (PIs) in Code TH to match exactly research requirements.
- 3) Test Subject labor and expense costs are estimates and could vary significantly depending on actual usage. This will require close monitoring of actual expenditures and the providing of monthly status data to the Task Requestor.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 194

Modification Number: 001

Task Title:	Test Subject Recruitment Office
Planned End Date:	July 31, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend period of performance on task to July 31, 2010. No changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 194

Modification Number: 002

Task Title:	Test Subject Recruitment Office
Planned End Date:	November 30, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend period of performance on task to November 30, 2010. No changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 195.000.2
 Modify existing Task Number

Task Title: Publication Services and Database Services Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task will provide Publications Services, Database Management Services, VPP Training support for the TH Division.

Support under this task includes support for database maintenance and management services for the multiple databases used by Division management, IT documentation, training, Quality Records maintenance, VPP training, and desktop publishing support. Additionally, support will be provided for consultation regarding reorganization of Division IT procedures and processes.

A.2.1. Specific Task Requirements

The requirements of this Task is to:

- 1) Provide limited desktop editing support for research publications
- 2) Support general database maintenance and management for existing or new databases
- 3) Support consultation regarding reorganization of Division IT processes and procedures
- 4) Provide VPP training (e.g. BEAP, Safety, Ergonomics)

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 196.000.2
 Modify existing Task Number

Task Title: TH Division Systems and Facility Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The task will provide support services to the Human Factors Research and Technology Division in Building 262. These services include Unix Systems Support, Small Systems Support, Web Support, Facility Support, and Engineering Support.

The Unix and small systems support includes responsibility for all issues computer and networking related. This includes (but is not limited to) support of user account management, software installation and issues, system security, hardware configurations and repairs and network configuration and implementation.

IT Facility Support provides building operational assurance and planning for the IT physical facility. IT Facility Support also handles office and lab modifications and relocations and IT property tracking. Safety Reporting and inspections from outside organizations are coordinated and compliance is tracked by this group.

Engineering Support provides hardware design and builds of custom equipment used in lab experiments. Staff works directly with the researcher on the design, coordination of facility modifications, and implementation of a requested project. The Engineering Group assists the IT Facility Support with small projects and assists the Systems Groups with all physical networking and audio changes and infrastructure, hardware implementation and network troubleshooting.

A.2.1 Specific Task Requirements

Unix and Small Systems Support:

- Insure that essential desktop and lab machines are running and fully operational. The exception being planned power outages, hardware failure and acts of God. The Group is responsible for immediate system recovery if one of the above exceptions does occur.
- Insure that the building internal network hardware is operational and running optimally with the exception of the same limitations listed above.
- Upgrading of NASA/Center standard COTS software (i.e., Microsoft Office, Outlook/Entourage, and Norton Antivirus) and implementing and maintaining current versions of TCP Wrappers, PatchLink and OpenSSH/SSL, as well as other based secure software, on all UNIX workstations.
- Performing computer, peripheral, and network hardware and software installations.
- Conducting IT security checks, applying security patches, and performing system/data recoveries after a break-in.
- Maintain PatchLink, CIS Benchmark and FDCC compliance according NASA Ames directive.
- Assist the CSO in the writing of the TH Division's IT security plans – to include Low and Moderate plans.
- Perform routine administration of systems (e.g., account management, file system management, system performance tuning, printing, etc.).
- Provide system problem diagnostics and crash recovery.
- Perform regular backups of end-user data; monthly full backups and daily incremental backups with an 8 week retention period for the data.
- Maintain and support the hardware and software on the Division and Labs' Linux and Macintosh servers.
- Provide real-time dedicated support to lab and simulation studies (e.g. system, software and device troubleshooting or replacement, and system load balancing and network load debugging).
- Provide network scanning for rouge devices and IP conflicts. Manage the TH Division's IP space.
- Provide web application support (e.g. Apache, PHP and MySQL) to the TH Division's web servers.

Web Support:

- Provide webpage development to the Division and Branches as well as consultation and guidelines to any Division personnel doing webpage development.
- Assist the Division's Outreach Manager with promotional projects and conferences.

IT Facility Support:

- Provide and maintain detailed drawings of building, offices and labs. This also entails drawings and knowledge of existing electrical building configuration, network panel locations and modular furniture configuration; as well as other facility issues associated with the IT infrastructure
- Arrange and oversee office/lab moves and physical reconfigurations.
- Surplus the Division's obsolete equipment and maintain historical records.
- Coordinate Safety Inspections and the resolution of any issues found.
- Manage repairs and safety issues within the facility
- Work with the project manager on any facility projects slated for the IT facility. Keep Division management informed on all issues, and their resolution.

Engineering Support:

- Provide and maintain detailed drawings of building network infrastructure. Activate/deactivate network circuits/clients on private, public, and open networks as required. Work with the Systems Group to help troubleshoot network performance issues. Install, configure and test new edge devices on the network for expansion.
- Gather project requirements from researchers to enable the design, construction, and implementation of prototype hardware to be used in various lab experiments throughout the Division. Work with researchers to refine requirements as the project develops and make sure the final implementation provided meets the specified need of the researchers.
- Provide assistance to the Facility Group for any IT related facilities activities. Assist in the resolution of safety issues within the facility. Track all chemicals present in the building and providing MSDS Sheets for them.
- Maintain Audio and VIDNET infrastructure to conference rooms and labs.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- Property Location
- Unused equipment

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.22 Web-based intranet and internet information and applications
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- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 196

Modification Number: 001

Task Title:	TH Division Systems and Facility Support
Planned End Date:	July 31, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010 and the following requirements are added:

Requirements are added for database maintenance and management services for the multiple databases used by Division management, IT documentation, training, Quality Records maintenance, VPP training, and desktop publishing support. Additionally, support will be provided for consultation regarding reorganization of Division IT procedures and processes.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 196

Modification Number: 002

Task Title:	TH Division Systems and Facility Support
Planned End Date:	July 31, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification adds new requirements and expands some existing requirements as detailed below:

Requirements are expanded for:

- Database development and management/maintenance services for the multiple databases used by Division management.

New requirements are added for:

- Establishment and support for new tracking systems/databases for schedules relative to system support activities, website development, and NASA IT property.
- Coordination and support for Webex presentation collaboration system and other system resources as necessary to support and facilitate meetings and telecoms
- Support for TH Division website, to include development, data collection and entry
- Support for internal TH data sharing and communication to improve collaboration and communication between TH resident staff relative to ongoing outreach activities, planning, organizing and conducting events (workshops, conference representations, and onsite meetings), manage library of multimedia materials.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 196

Modification Number: 003

Task Title:	TH Division Systems and Facility Support
Planned End Date:	November 30, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the period of performance to November 30, 2010. No change to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 197.000.2
 Modify existing Task Number

Task Title: MIDAS Development and Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This work is in support of NASA AvSAFE/IIFDT/SDA CSATK project milestone "Develop and verify a Coordinated Situation Awareness (CSA) model using a taxi scenario". The CSATK is a toolkit, based on the MIDAS platform, intended for use for the design and evaluation of cockpit displays and procedures.

Task 1. Augment CSA algorithm. Working with researchers, iterate and refine the CSA algorithm. At a minimum, the algorithm should be refined to weight CSA output as a function of task importance. Modifications should also address accessibility of Situational Elements for ‘many to many’ equipment/attribute pairings. Initial algorithm should be delivered to NASA for review by 12/1/09. Revise algorithms based on NASA feedback.

Task 2. Taxi Application Model. Work with researchers to refine the existing ‘Land and Taxi’ model to demonstrate how CSA changes as a function of display design features. The taxi portion of the existing ‘Land and Taxi’ model should be refined to increase the level of fidelity of taxi operations and to reflect accurate SEEV weightings. This model effort will require multiple model ‘what-if iterations’ to demonstrate the effect of varying display format and information accessibility on operator SA for both pilots and ATC (ground controller or local controller as per scenario). Initial application model with documentation should be delivered to NASA for review by 12/1/09. Revise model based on NASA feedback.

Task 3. Augment SA output reports. The culmination of the FY09 work resulted in a modification to the SA output report to include SA_{optimal}, SA_{actual}, and SA_{degraded} by operator, time, and context. In this effort, the SA output report should be further augmented to include SA for each high-level task (aviate, separate, navigate communicate, systems) and each Situation Element (e.g., traffic, altitude, speed). The output should also include a report of: a) elements that are shared (required or desired) by both operators b) elements that are shared, but degraded c) the source of SA degradation for each operator.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 197

Modification Number: 001

Task Title:	MIDAS Development and Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. David Foyle

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010. No changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 197

Modification Number: 002

Task Title:	MIDAS Development and Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. David Foyle

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification adds the following new requirements for three projects to include: software development, enhancement and integration; development of research scenarios; software enhancement and refining of the following models: pilot workload, cockpit situation awareness, current-day surface operations (taxi), and very closely space parallel operations; and validation of all models to include data collection and analysis. Results of this analysis will be provided.

- 1. CSA (Coordinated Situation Awareness) Project:** This work is in support of NASA AvSAFE/IIFDT/SDA CSATK project milestone "Develop and verify a Coordinated Situation Awareness (CSA) model using a taxi scenario". The CSATK is a toolkit, based

on the MIDAS platform, intended for use for the design and evaluation of cockpit displays and procedures.

2. **SESO (Safe and Efficient Surface Operations) Project:** This work is in support of the NASA SESO Human Performance Modeling project. The objective of this research is to augment MIDAS' workload model and employ it to demonstrate the effects of advanced surface (taxi) operations procedures and technologies on pilot workload.
3. **FAA CSPO (FAA Closely Spaced Parallel Operations) Project.** This work is in support of the NASA-FAA Closely Spaced Parallel Operations (CSPO) project. MIDAS will be used to develop human performance models of CSPO. The models will be used to evaluate proposed changes to flight deck technologies and pilot procedures, operations, and roles and responsibilities to support these NextGen CSPO operations. Model outputs, including time required to complete tasks, event/error detection, pilot workload, situation awareness, and visual attention will be used to draw conclusions regarding the information requirements necessary to support NextGen CSPO concepts.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 197

Modification Number: 003

Task Title:	MIDAS Development and Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. David Foyle

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the period of performance to November 30, 2010. This modification also removes one of the more detailed tasks under the SESO (Safe and Efficient Surface Operations) Project, (SESO project task # 3 -- Develop high-fidelity current-day and future operations surface (taxi) operations scenario). Finally this modification adds a new requirement to the FAA CSPO project (FAA CSPO Task 5: Augment CSPO model to include off-nominal events Technical specifications to be provided by NASA).

Laboratory Technical Support:

Laboratory support includes the design, specification, installation and maintenance of Laboratory facilities including hardware and software required to collect performance, audio and video data.

Specific experiment/development goals will be reviewed by the Task Requester and Perot Systems management on a Quarterly basis.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 201

Modification Number: 001

Task Title:	CEV Laboratory Development and Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Robert McCann

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010, there are no changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 201

Modification Number: 002

Task Title:	CEV Laboratory Development and Support
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Robert McCann

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010; there are no changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 201

Modification Number: 003

Task Title:	CEV Laboratory Development and Support
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Robert McCann

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is increase the budget for Materials to add a new requirement to upgrade an existing high-speed video camera, in order to have a much faster interface as required for the upcoming research in the centrifuge.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 210.000.2
 Modify existing Task Number

Task Title: Trunking Radio

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this task is to support the NASA Ames Research Center Trunking Radio (T-Radio) System.

General Task Performance Guidelines and Standards:

All work shall be performed to specification and in a neat and workmanlike manner. All work shall comply with applicable codes, regulations, and standards. All work shall be performed utilizing manufacturer installation best practices while vetted against appropriate Task Requester review for local policies and procedures. Upon completion, all work sites will be cleared of all debris equipment, materials, and parts resulting from the work.

All documentation pertaining to this task is to be maintained to insure accuracy, and made available for reference both in the approved Code IO document sharing mechanism, as well as hard copy available where the Task Requester specifies. Modifications to documentation due to Adds/Moves/Changes to this system shall be maintained as “red lines”, and provided to the Task Requester for review and approval prior to implementation. Once an Add/Move/Change is performed, the “as built” documentation is to be provided to the Task Requester for review and approval, and then incorporated into the baseline sets.

All work and operating areas, tooling, equipment, vehicles, and systems utilized will be continually maintained in a neat and organized manner. Specifically, the Emergency Communications Center (ECC) operating area, work, and test bench areas are to be kept neat and

clean in the context of equipment managed by the Trunking Radio task. It is recognized that some equipment in these areas is present due to center DART activities, which the Trunking Radio task is not responsible for maintaining. In support of this goal, staging of equipment for Add/Move/Change activities will be coordinated with the Task requester.

Specific Task Requirements:

This task supports the maintenance and operation of the Center-wide T-Radio system and all associated user equipment. Specifically, the task supports the T-Radio system and all associated land mobile radios and systems specially integrated to utilize the radio trunking system for communications purposes. This support entails the maintenance, repair; reprogramming services, operational, administrative and customer support on Ames' M/A-Com EDACS digital T-Radio repeater system, and up to 600 associated portable, mobile and base station end user radios. It will also include continued support of the narrowband upgrade, which was completed last year.

The T-Radio system consists of seven 406-420 Mhz radio repeater transceivers and Turbo GE Trunking Cards (GETCs), primary and backup transmit and receive antenna systems, Site Interface Module (SIM) and other directly associated radio repeater station equipment. This includes the Communications System Director (CSD) system software, a tool that is utilized to configure the trunking radio system. Task 210 PSGS contractor staff activity when accessing the CSD will be limited to upkeep of the radio Electronic ID (EID) database, and use of the performance monitoring tools. All other functions available through use of the CSD are limited to the Task Requester.

End user equipment shall be modified and repaired when needed. All system documentation, pre-maintenance records, repair and programming logs, the T-Radio user matrix database, CSD user/radio/system configuration database, and the tasks Standard Operating Procedures manual, shall be kept relevant in accordance with any changes to the system warranting change. All changes to the aforementioned documentation shall be reported to the Task Requester for review and approval.

Government Furnished Equipment (GFE) and vehicles used in support of the project, such as the RF communications test sets, and 50-ohm coax connectorizing tools, are made available to the contractor to support their daily operations and maintenance duties. If required, Ames RF Spectrum Management program test equipment, such as spectrum analyzers, field strength meters, frequency counters, antenna analyzers, etc., can be checked-out from the Center RF Spectrum Manager. This equipment is not to be re-loaned out by the staff, and is to be immediately returned to Spectrum Manager when they are no longer required.

The repeaters and headend of the trunking radio system are at end of life, and a plan must be developed to replace the aging gear to get it up to date, and feature compatible with the trunking radio users needs. It is expected that the task will develop a plan to upgrade this system.

Technical

- T-Radio system hub located in N254, Room 109:

- Inspect all station equipment cabinets and coaxial lines within the cabinets for any tampering or damage weekly. Alert Task Requester if any problems are discovered
- Check cabinet temperatures and door filters weekly. Correct any problems observed, report to Task Requester, and alert the Ames External Interface (EI) personnel if further corrections need to be supported.
- Take weekly measurements of the Standing Wave Ratio (SWR) for all the repeaters coaxial lines. Alert Task Requester if any of the system's seven repeaters report an SWR of greater than 1:7.
- Vacuum inside of all cabinets and clean all door filters monthly.
- Perform a pre-maintenance check, and if applicable, system realignment on T-Radio repeaters, Turbo GETC' transmitter combiner, receiver multicoupler/amplifier, and antenna systems quarterly. Results of each pre-maintenance check shall be reported to the Task Requester in writing.
- T-Radio narrowband conversion:
 - On an as funded by customer basis, process user radio equipment that qualifies for narrowband upgrading to the manufacturer (M/A-Com) for conversion.
 - On an as funded by customer basis, procure, and configure narrowband replacement mobile/portable radio equipment for end users.
- Security Dispatch Console System located in N241, Room 105A (assuming customer funding):
 - Inspect the radio dispatch console operator modules, console switch rack equipment, and all system-associated punch down blocks and cabling for any deterioration, or other damage or tampering to the equipment weekly. Alert Task Requester immediately if any problems are discovered.
 - Vacuum inside of the console operator module cabinets and around the console switch rack monthly. Alert Task Requester if any problems are discovered.
 - Provide and document upgrades and modifications to the system as required.
- Fire Station Public Address ring down system located in N241 and M580 (assuming customer funding):
 - Inspect the Fire Station Public address ring down system and associated switch rack, dedicated copper landlines, VHF transceivers and antenna systems through designated telephone and PA system interface demarcations for any deterioration, damage, and tampering weekly. Immediately alert Task Requester if any problems are discovered.
- Air Traffic Control Tower VHF-UFH air to ground dedicated radio landline link located in the M158 exterior communications close next to room 128 (assuming customer funding):
 - Inspect the system's relay equipment and dedicated landlines at both building M158 and N241 for any deterioration, damage, and tampering weekly. Immediately alert Task Requester if any problems are discovered.

When a service outage is reported for one of these systems, assuming customer funding is in place, staff is to respond per the following specifications:

- After operational hours (as defined in this document) – Staff must respond within 15 minutes after receipt of the page, and must be on-site, if necessary, to address the problem within one hour of receipt of the page.
- During operational hours (as defined in this document) – Staff must respond within 5 minutes after receipt of the page, and must be on the scene where the problem is reported within 15 minutes after receipt of the page if necessary.

Permanent or temporary corrections are to be implemented when responding to all valid trouble calls on the trunking radio repeater system, security dispatch console system, fire station ring down system, ATC VHF/UHF radio link, or any security, fire, or safety mobile radio system. Temporary corrections put in place by contractor staff in an effort to make the system operable in a timely fashion must be approved by the Task Requestor prior to contractor staff departing the scene. All temporary corrections must be followed-up with a permanent solution in a timely manner, at which time the trouble ticket may be closed.

Administrative:

The support staff will be required to maintain, edit, and modify the RF group's master radio user, talk net, billing, equipment model, repair, and programming database contained in the Alpha Radio Matrix database daily. A special modified version of this database will be forwarded to Code JP's Security Dispatch Center for every Add/Move/Change activity. The contractor support staff will be required to derive several periodic reports from this database such as the radio user billing, radio repair cost analysis, radio programming, and narrowband compatibility reports.

The Task Requester shall be provided the system alarm report for the previous 24 hour period via email daily assuming there are no critical alarms. All critical alarms must be reported to the Task Requester immediately. If applicable, staff will implement appropriate corrections or temporary fixes to problems noted in advance of follow-up meetings with the Task Requester to discuss the issue.

The support staff will be required to back-up the activity and site configuration data from the month previous to the last month in the Communications system director at the on the first working day of each new month. The data back-up cartridges are to be stored in the same location as the CSD in building N254.

Support staff will provide the Task Requester a report summarizing total calls, total system talk time, average talk time, queued calls, and percentage of total system usage broken down by talk nets (SECURITY, FIRE, OPS, and 911A). The report will be delivered in excel format, on the first working day of each month, and will be based on data collected from the previous month.

The trunking radio Standard Operating Procedures manual is to be maintained as changes warrant. Any changes shall be submitted to the Task Requester for review and approval. Areas covered by the SOP Manual should include programming for all supported radios, reprogramming of the Master III stations, Turbo GETCs settings, and navigating the CSD menu options.

A centralized task tracking and reporting system, Remedy, is to be utilized for tracking of customer funded and routine tasks, as well as support tickets. Remedy shall be maintained to keep all open ticket information consistent with the current status of a task. A weekly status report shall be provided to the task requester outlining the current status of Remedy tickets.

Without exception, two-person safety is required every time a support staff member is working on a ladder, rooftop, man lift, or climbing a tower with the fall protection equipment provided by the Task Requester that meets or exceeds current OSHA and NASA standards for fall protection requirements. Each RF staff member is required to be fall protection certified through Code Q before climbing any towers.

Drawings for the Ames T-Radio system, Zetron security dispatch console system, fire station ring down/public address system, Air Traffic Control VHF and UHF air-to-ground radio landline link are to be kept up-to-date by the support staff. These documentation packages are to be updated no later than 20 working days from the date any changes are made to any of these systems.

Staffing:

The staff the contactor provides to support these requirements must have experience in maintaining M/A-Com EDACS radio trunking systems, and on the maintenance and operation of Zetron Series 4000 radio dispatcher console and 6/26 fire station ring down systems. Zetron training or experience is desirable. Also, all support staff members must be experienced in the operations and support of commercial and public safety radio frequency systems such as transceivers, transmitters, receivers, amplifiers, antennas, antenna bases, coaxial lines, connectors, SWR bridges, etc. Computer, video, commercial off-the-shelf and other low powered RF systems are not acceptable experience.

The support staff shall be proficient in the operation and maintenance of 406-420 Mhz M/A Com digital trunking radios, conventional technology radios, control heads and accessory equipment. The staff should be initially proficient in most products currently in use by the Ames user community. These include MRK, MPA, MPD, P7100, M7100, RANGR and Orion trunking transceivers, MLS, MVS, MDX and PCS conventional transceivers, and RANGR DeskTop, Orion DeskTop, S825 and S550 control heads, and headset, speaker microphone, earpiece microphone, and various other accessory equipment that adapt to the aforementioned radio systems. The support staff shall also be proficient in M/A Com EDACS radio trunking technology, and Zetron Series 4000 console and station ring down systems. The support staff members must also possess written and verbal skills sufficient to effectively communicate with customers and over radios.

The support staff will only be authorized unsupervised access to the Ames radio trunking system hub located in N254, the security radio dispatch console system in N241, the fire station ring down system in M580, the ATC air-to-ground radio landline link in M158, and other government furnished equipment and systems, after PSGS management has assured the Task Requestor that each technician is fully competent to be allowed unsupervised access to these systems.

The support staff at a minimum must have one staff member authorized to test, diagnose, modify or attempt to repair any components of the M/A Com digital trunked radio repeater system station equipment (other than utilizing pre-installed test and measurement equipment). This authorization will be provided by the Task Requestor upon each staff member's satisfactory completion of M/A Com's Master III EDACS technician station equipment maintenance course. Equally so, any subcontractors that PSGS wishes to use to support the repair, pre-maintenance, or modification of the Ames digital trunked radio repeater system, at minimum must possess a facility repair certification from M/A Com.

Because logistics duties and working at heights above rooftops will be part of the support staff's responsibilities, each staff member is required to possess a valid California Driver's license at all times, be able to support lifting the maximum unassisted weight allowed by OSHA regulations, work on ladders, work on rooftops, and upon on-site certification by Code Q, operate man lifts in support of working on antenna systems and towers. PSGS shall not supplement staff at extra cost to the government, should any of their staff not be able to support any of the aforementioned requirements. If any staff member does not possess a valid man lift operator's certification from Code Q, they will be required to secure this certification at the government's time and expense. These requirements assume the availability of Code Q for training and certification.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task _____
 Modify existing Task Number 210.001.2

Task Title: Trunking Radio

Planned Start Date: October 1, 2009 Planned End Date: July 31, 2010

ACITS2 SOW Reference C.1.2

Modification 1 – January 22, 2010: This modification is to extend the task through the July 31, 2010 option. In addition, minor changes are made in the requirements and approach sections to remove outdated information.

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this task is to support the NASA Ames Research Center Trunking Radio (T-Radio) System.

General Task Performance Guidelines and Standards:

All work shall be performed to specification and in a neat and workmanlike manner. All work shall comply with applicable codes, regulations, and standards. All work shall be performed utilizing manufacturer installation best practices while vetted against appropriate Task Requester review for local policies and procedures. Upon completion, all work sites will be cleared of all debris equipment, materials, and parts resulting from the work.

All documentation pertaining to this task is to be maintained to insure accuracy, and made available for reference both in the approved Code IO document sharing mechanism, as well as hard copy available where the Task Requester specifies. Modifications to documentation due to Adds/Moves/Changes to this system shall be maintained as “red lines”, and provided to the Task Requester for review and approval prior to implementation. Once an Add/Move/Change is performed, the “as built” documentation is to be provided to the Task Requester for review and approval, and then incorporated into the baseline sets.

All work and operating areas, tooling, equipment, vehicles, and systems utilized will be continually maintained in a neat and organized manner. Specifically, the Emergency Communications Center (ECC) operating area, work, and test bench areas are to be kept neat and clean in the context of equipment managed by the Trunking Radio task. It is recognized that some equipment in these areas is present due to center DART activities, which the Trunking Radio task is not responsible for maintaining. In support of this goal, staging of equipment for Add/Move/Change activities will be coordinated with the Task requester.

Specific Task Requirements:

This task supports the maintenance and operation of the Center-wide T-Radio system and all associated user equipment. Specifically, the task supports the T-Radio system and all associated land mobile radios and systems specially integrated to utilize the radio trunking system for communications purposes. This support entails the maintenance, repair; reprogramming services, operational, administrative and customer support on Ames' M/A-Com EDACS digital T-Radio repeater system, and up to 600 associated portable, mobile and base station end user radios. ~~It will also include continued support of the narrowband upgrade, which was completed last year.~~

The T-Radio system consists of seven 406-420 Mhz radio repeater transceivers and Turbo GE Trunking Cards (GETCs), primary and backup transmit and receive antenna systems, Site Interface Module (SIM) and other directly associated radio repeater station equipment. This includes the Communications System Director (CSD) system ~~software~~, a tool that is utilized to configure the trunking radio system. Task 210 PSGS contractor staff activity when accessing the CSD will be limited to upkeep of the radio Electronic ID (EID) database, and use of the performance monitoring tools. All other functions available through use of the CSD are limited to the Task Requester.

End user equipment shall be modified and repaired when needed. All system documentation, pre-maintenance records, repair and programming logs, the T-Radio user matrix database, CSD user/radio/system configuration database, and the tasks Standard Operating Procedures manual, shall be kept relevant in accordance with any changes to the system warranting change. All changes to the aforementioned documentation shall be reported to the Task Requester for review and approval.

Government Furnished Equipment (GFE) and vehicles used in support of the project, such as the RF communications test sets, and 50-ohm coax connectorizing tools, are made available to the contractor to support their daily operations and maintenance duties. If required, Ames RF Spectrum Management program test equipment, such as spectrum analyzers, field strength meters, frequency counters, antenna analyzers, etc., can be checked-out from the Center RF Spectrum Manager. This equipment is not to be re-loaned out by the staff, and is to be immediately returned to Spectrum Manager when they are no longer required.

The repeaters and headend of the trunking radio system are at end of life, and a plan must be developed to replace the aging gear to get it up to date, and feature compatible with the trunking radio users needs. It is expected that the task will develop a plan to upgrade this system.

Technical

- T-Radio system hub located in N254, Room 109:
 - Inspect all station equipment cabinets and coaxial lines within the cabinets for any tampering or damage weekly. Alert Task Requester if any problems are discovered
 - Check cabinet temperatures and door filters weekly. Correct any problems observed, report to Task Requester, and alert the Ames External Interface (EI) personnel if further corrections need to be supported.
 - Take weekly measurements of the Standing Wave Ratio (SWR) for all the repeaters coaxial lines. Alert Task Requester if any of the system's seven repeaters report an SWR of greater than 1:7.
 - Vacuum inside of all cabinets and clean all door filters monthly.
 - Perform a pre-maintenance check, and if applicable, system realignment on T-Radio repeaters, Turbo GETC' transmitter combiner, receiver multicoupler/amplifier, and antenna systems quarterly. Results of each pre-maintenance check shall be reported to the Task Requester in writing.
- ~~T Radio narrowband conversion:~~
 - ~~On an as funded by customer basis, process user radio equipment that qualifies for narrowband upgrading to the manufacturer (M/A-Com) for conversion.~~
 - ~~On an as funded by customer basis, procure, and configure narrowband replacement mobile/portable radio equipment for end users.~~
- Security Dispatch Console System located in N241, Room 105A (assuming customer funding):
 - Inspect the radio dispatch console operator modules, console switch rack equipment, and all system-associated punch down blocks and cabling for any deterioration, or other damage or tampering to the equipment weekly. Alert Task Requester immediately if any problems are discovered.
 - Vacuum inside of the console operator module cabinets and around the console switch rack monthly. Alert Task Requester if any problems are discovered.
 - Provide and document upgrades and modifications to the system as required.
- Fire Station Public Address ring down system located in N241 and M580 (assuming customer funding):
 - Inspect the Fire Station Public address ring down system and associated switch rack, dedicated copper landlines, VHF transceivers and antenna systems through designated telephone and PA system interface demarcations for any deterioration, damage, and tampering weekly. Immediately alert Task Requester if any problems are discovered.
- Air Traffic Control Tower VHF-UFH air to ground dedicated radio landline link located in the M158 exterior communications closet next to room 128 (assuming customer funding):

- Inspect the system's relay equipment and dedicated landlines at both building M158 and N241 for any deterioration, damage, and tampering weekly. Immediately alert Task Requester if any problems are discovered.

When a service outage is reported for one of these systems, assuming customer funding is in place, staff is to respond per the following specifications:

- **After operational hours (as defined in this document) – Staff must respond within 15 minutes upon notification, and must be on-site, if necessary, to address the problem within one hour of notification.**
- **During operational hours (as defined in this document) – Staff must respond within 5 minutes of notification, and must be on the scene where the problem is reported within 15 minutes after notification if necessary.**

Permanent or temporary corrections are to be implemented when responding to all valid trouble calls on the trunking radio repeater system, security dispatch console system, fire station ring down system, ATC VHF/UHF radio link, or any security, fire, or safety mobile radio system. Temporary corrections put in place by contractor staff in an effort to make the system operable in a timely fashion must be approved by the Task Requestor prior to contractor staff departing the scene. All temporary corrections must be followed-up with a permanent solution in a timely manner, at which time the trouble ticket may be closed.

Administrative:

The support staff will be required to maintain, edit, and modify the RF group's master radio user, talk net, billing, equipment model, repair, and programming database contained in the Alpha Radio Matrix database daily. A special modified version of this database will be forwarded to Code JP's Security Dispatch Center for every Add/Move/Change activity. The contractor support staff will be required to derive several periodic reports from this database such as the radio user billing, radio repair cost analysis, radio programming, and narrowband compatibility reports.

The Task Requester shall be provided the system alarm report for the previous 24 hour period via email daily assuming there are no critical alarms. All critical alarms must be reported to the Task Requester immediately. If applicable, staff will implement appropriate corrections or temporary fixes to problems noted in advance of follow-up meetings with the Task Requester to discuss the issue.

The support staff will be required to back-up the activity and site configuration data from the month previous to the last month in the Communications system director at the on the first working day of each new month. The data back-up cartridges are to be stored in the same location as the CSD in building N254.

Support staff will provide the Task Requester a report summarizing total calls, total system talk time, average talk time, queued calls, and percentage of total system usage broken down by talk nets (SECURITY, FIRE, OPS, and 911A). The report will be delivered in excel format, on the first working day of each month, and will be based on data collected from the previous month.

The trunking radio Standard Operating Procedures manual is to be maintained as changes warrant. Any changes shall be submitted to the Task Requester for review and approval. Areas covered by the SOP Manual should include programming for all supported radios, reprogramming of the Master III stations, Turbo GETCs settings, and navigating the CSD menu options.

A centralized task tracking and reporting system, Remedy, is to be utilized for tracking of customer funded and routine tasks, as well as support tickets. Remedy shall be maintained to keep all open ticket information consistent with the current status of a task. A weekly status report shall be provided to the task requester outlining the current status of Remedy tickets. Support staff will also begin development of an issue tracking system that will include a brief description of the issue, recommended actions to resolve the issue, and current status.

Without exception, two-person safety is required every time a support staff member is working on a ladder, rooftop, man lift, or climbing a tower with the fall protection equipment provided by the Task Requester that meets or exceeds current OSHA and NASA standards for fall protection requirements. Each RF staff member is required to be fall protection certified through Code Q before climbing any towers.

Drawings for the Ames T-Radio system, Zetron security dispatch console system, fire station ring down/public address system, Air Traffic Control VHF and UHF air-to-ground radio landline link are to be kept up-to-date by the support staff. These documentation packages are to be updated no later than 20 working days from the date any changes are made to any of these systems.

Staffing:

The staff the contactor provides to support these requirements must have experience in maintaining M/A-Com EDACS radio trunking systems, and on the maintenance and operation of Zetron Series 4000 radio dispatcher console and 6/26 fire station ring down systems. Zetron training or experience is desirable. Also, all support staff members must be experienced in the operations and support of commercial and public safety radio frequency systems such as transceivers, transmitters, receivers, amplifiers, antennas, antenna bases, coaxial lines, connectors, SWR bridges, etc. Computer, video, commercial off-the-shelf and other low powered RF systems are not acceptable experience.

The support staff shall be proficient in the operation and maintenance of 406-420 Mhz M/A Com digital trunking radios, conventional technology radios, control heads and accessory equipment. The staff should be initially proficient in most products currently in use by the Ames user community. These include MRK, ~~MPA, MPD~~, P7100, M7100, ~~RANGR~~, and Orion trunking transceivers, MLS, MVS, MDX and PCS conventional transceivers, ~~RANGR-DeskTop~~, and Orion DeskTop, ~~S825 and S550 control heads~~, and headset, speaker microphone, earpiece microphone, and various other accessory equipment that adapt to the aforementioned radio systems. The support staff shall also be proficient in M/A Com EDACS radio trunking technology, and Zetron Series 4000 console and station ring down systems. The support staff

members must also possess written and verbal skills sufficient to effectively communicate with customers and over radios.

The support staff will only be authorized unsupervised access to the Ames radio trunking system hub located in N254, the security radio dispatch console system in N241, the fire station ring down system in M580, the ATC air-to-ground radio landline link in M158, and other government furnished equipment and systems, after PSGS management has assured the Task Requestor that each technician is fully competent to be allowed unsupervised access to these systems.

The support staff at a minimum must have one staff member authorized to test, diagnose, modify or attempt to repair any components of the M/A Com digital trunked radio repeater system station equipment (other than utilizing pre-installed test and measurement equipment). This authorization will be provided by the Task Requestor upon each staff member's satisfactory completion of M/A Com's Master III EDACS technician station equipment maintenance course. Equally so, any subcontractors that PSGS wishes to use to support the repair, pre-maintenance, or modification of the Ames digital trunked radio repeater system, at minimum must possess a facility repair certification from M/A Com.

Because logistics duties and working at heights above rooftops will be part of the support staff's responsibilities, each staff member is required to possess a valid California Driver's license at all times, be able to support lifting the maximum unassisted weight allowed by OSHA regulations, work on ladders, work on rooftops, and upon on-site certification by Code Q, operate man lifts in support of working on antenna systems and towers. PSGS shall not supplement staff at extra cost to the government, should any of their staff not be able to support any of the aforementioned requirements. If any staff member does not possess a valid man lift operator's certification from Code Q, they will be required to secure this certification at the government's time and expense. These requirements assume the availability of Code Q for training and certification.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task _____
 Modify existing Task Number 210.001.2

Task Title: Trunking Radio

Planned Start Date: October 1, 2009 Planned End Date: July 31, 2010

ACITS2 SOW Reference C.1.2

Modification 1 – January 22, 2010: This modification is to extend the task through the July 31, 2010 option. In addition, minor changes are made in the requirements and approach sections to remove outdated information.

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this task is to support the NASA Ames Research Center Trunking Radio (T-Radio) System.

General Task Performance Guidelines and Standards:

All work shall be performed to specification and in a neat and workmanlike manner. All work shall comply with applicable codes, regulations, and standards. All work shall be performed utilizing manufacturer installation best practices while vetted against appropriate Task Requester review for local policies and procedures. Upon completion, all work sites will be cleared of all debris equipment, materials, and parts resulting from the work.

All documentation pertaining to this task is to be maintained to insure accuracy, and made available for reference both in the approved Code IO document sharing mechanism, as well as hard copy available where the Task Requester specifies. Modifications to documentation due to Adds/Moves/Changes to this system shall be maintained as “red lines”, and provided to the Task Requester for review and approval prior to implementation. Once an Add/Move/Change is performed, the “as built” documentation is to be provided to the Task Requester for review and approval, and then incorporated into the baseline sets.

All work and operating areas, tooling, equipment, vehicles, and systems utilized will be continually maintained in a neat and organized manner. Specifically, the Emergency Communications Center (ECC) operating area, work, and test bench areas are to be kept neat and clean in the context of equipment managed by the Trunking Radio task. It is recognized that some equipment in these areas is present due to center DART activities, which the Trunking Radio task is not responsible for maintaining. In support of this goal, staging of equipment for Add/Move/Change activities will be coordinated with the Task requester.

Specific Task Requirements:

This task supports the maintenance and operation of the Center-wide T-Radio system and all associated user equipment. Specifically, the task supports the T-Radio system and all associated land mobile radios and systems specially integrated to utilize the radio trunking system for communications purposes. This support entails the maintenance, repair; reprogramming services, operational, administrative and customer support on Ames' M/A-Com EDACS digital T-Radio repeater system, and up to 600 associated portable, mobile and base station end user radios. ~~It will also include continued support of the narrowband upgrade, which was completed last year.~~

The T-Radio system consists of seven 406-420 Mhz radio repeater transceivers and Turbo GE Trunking Cards (GETCs), primary and backup transmit and receive antenna systems, Site Interface Module (SIM) and other directly associated radio repeater station equipment. This includes the Communications System Director (CSD) system ~~software~~, a tool that is utilized to configure the trunking radio system. Task 210 PSGS contractor staff activity when accessing the CSD will be limited to upkeep of the radio Electronic ID (EID) database, and use of the performance monitoring tools. All other functions available through use of the CSD are limited to the Task Requester.

End user equipment shall be modified and repaired when needed. All system documentation, pre-maintenance records, repair and programming logs, the T-Radio user matrix database, CSD user/radio/system configuration database, and the tasks Standard Operating Procedures manual, shall be kept relevant in accordance with any changes to the system warranting change. All changes to the aforementioned documentation shall be reported to the Task Requester for review and approval.

Government Furnished Equipment (GFE) and vehicles used in support of the project, such as the RF communications test sets, and 50-ohm coax connectorizing tools, are made available to the contractor to support their daily operations and maintenance duties. If required, Ames RF Spectrum Management program test equipment, such as spectrum analyzers, field strength meters, frequency counters, antenna analyzers, etc., can be checked-out from the Center RF Spectrum Manager. This equipment is not to be re-loaned out by the staff, and is to be immediately returned to Spectrum Manager when they are no longer required.

The repeaters and headend of the trunking radio system are at end of life, and a plan must be developed to replace the aging gear to get it up to date, and feature compatible with the trunking radio users needs. It is expected that the task will develop a plan to upgrade this system.

Technical

- T-Radio system hub located in N254, Room 109:
 - Inspect all station equipment cabinets and coaxial lines within the cabinets for any tampering or damage weekly. Alert Task Requester if any problems are discovered
 - Check cabinet temperatures and door filters weekly. Correct any problems observed, report to Task Requester, and alert the Ames External Interface (EI) personnel if further corrections need to be supported.
 - Take weekly measurements of the Standing Wave Ratio (SWR) for all the repeaters coaxial lines. Alert Task Requester if any of the system's seven repeaters report an SWR of greater than 1:7.
 - Vacuum inside of all cabinets and clean all door filters monthly.
 - Perform a pre-maintenance check, and if applicable, system realignment on T-Radio repeaters, Turbo GETC' transmitter combiner, receiver multicoupler/amplifier, and antenna systems quarterly. Results of each pre-maintenance check shall be reported to the Task Requester in writing.
- ~~T Radio narrowband conversion:~~
 - ~~On an as funded by customer basis, process user radio equipment that qualifies for narrowband upgrading to the manufacturer (M/A-Com) for conversion.~~
 - ~~On an as funded by customer basis, procure, and configure narrowband replacement mobile/portable radio equipment for end users.~~
- Security Dispatch Console System located in N241, Room 105A (assuming customer funding):
 - Inspect the radio dispatch console operator modules, console switch rack equipment, and all system-associated punch down blocks and cabling for any deterioration, or other damage or tampering to the equipment weekly. Alert Task Requester immediately if any problems are discovered.
 - Vacuum inside of the console operator module cabinets and around the console switch rack monthly. Alert Task Requester if any problems are discovered.
 - Provide and document upgrades and modifications to the system as required.
- Fire Station Public Address ring down system located in N241 and M580 (assuming customer funding):
 - Inspect the Fire Station Public address ring down system and associated switch rack, dedicated copper landlines, VHF transceivers and antenna systems through designated telephone and PA system interface demarcations for any deterioration, damage, and tampering weekly. Immediately alert Task Requester if any problems are discovered.
- Air Traffic Control Tower VHF-UFH air to ground dedicated radio landline link located in the M158 exterior communications closet next to room 128 (assuming customer funding):

- Inspect the system's relay equipment and dedicated landlines at both building M158 and N241 for any deterioration, damage, and tampering weekly. Immediately alert Task Requester if any problems are discovered.

When a service outage is reported for one of these systems, assuming customer funding is in place, staff is to respond per the following specifications:

- **After operational hours (as defined in this document) – Staff must respond within 15 minutes upon notification, and must be on-site, if necessary, to address the problem within one hour of notification.**
- **During operational hours (as defined in this document) – Staff must respond within 5 minutes of notification, and must be on the scene where the problem is reported within 15 minutes after notification if necessary.**

Permanent or temporary corrections are to be implemented when responding to all valid trouble calls on the trunking radio repeater system, security dispatch console system, fire station ring down system, ATC VHF/UHF radio link, or any security, fire, or safety mobile radio system. Temporary corrections put in place by contractor staff in an effort to make the system operable in a timely fashion must be approved by the Task Requestor prior to contractor staff departing the scene. All temporary corrections must be followed-up with a permanent solution in a timely manner, at which time the trouble ticket may be closed.

Administrative:

The support staff will be required to maintain, edit, and modify the RF group's master radio user, talk net, billing, equipment model, repair, and programming database contained in the Alpha Radio Matrix database daily. A special modified version of this database will be forwarded to Code JP's Security Dispatch Center for every Add/Move/Change activity. The contractor support staff will be required to derive several periodic reports from this database such as the radio user billing, radio repair cost analysis, radio programming, and narrowband compatibility reports.

The Task Requester shall be provided the system alarm report for the previous 24 hour period via email daily assuming there are no critical alarms. All critical alarms must be reported to the Task Requester immediately. If applicable, staff will implement appropriate corrections or temporary fixes to problems noted in advance of follow-up meetings with the Task Requester to discuss the issue.

The support staff will be required to back-up the activity and site configuration data from the month previous to the last month in the Communications system director at the on the first working day of each new month. The data back-up cartridges are to be stored in the same location as the CSD in building N254.

Support staff will provide the Task Requester a report summarizing total calls, total system talk time, average talk time, queued calls, and percentage of total system usage broken down by talk nets (SECURITY, FIRE, OPS, and 911A). The report will be delivered in excel format, on the first working day of each month, and will be based on data collected from the previous month.

The trunking radio Standard Operating Procedures manual is to be maintained as changes warrant. Any changes shall be submitted to the Task Requester for review and approval. Areas covered by the SOP Manual should include programming for all supported radios, reprogramming of the Master III stations, Turbo GETCs settings, and navigating the CSD menu options.

A centralized task tracking and reporting system, Remedy, is to be utilized for tracking of customer funded and routine tasks, as well as support tickets. Remedy shall be maintained to keep all open ticket information consistent with the current status of a task. A weekly status report shall be provided to the task requester outlining the current status of Remedy tickets. Support staff will also begin development of an issue tracking system that will include a brief description of the issue, recommended actions to resolve the issue, and current status.

Without exception, two-person safety is required every time a support staff member is working on a ladder, rooftop, man lift, or climbing a tower with the fall protection equipment provided by the Task Requester that meets or exceeds current OSHA and NASA standards for fall protection requirements. Each RF staff member is required to be fall protection certified through Code Q before climbing any towers.

Drawings for the Ames T-Radio system, Zetron security dispatch console system, fire station ring down/public address system, Air Traffic Control VHF and UHF air-to-ground radio landline link are to be kept up-to-date by the support staff. These documentation packages are to be updated no later than 20 working days from the date any changes are made to any of these systems.

Staffing:

The staff the contactor provides to support these requirements must have experience in maintaining M/A-Com EDACS radio trunking systems, and on the maintenance and operation of Zetron Series 4000 radio dispatcher console and 6/26 fire station ring down systems. Zetron training or experience is desirable. Also, all support staff members must be experienced in the operations and support of commercial and public safety radio frequency systems such as transceivers, transmitters, receivers, amplifiers, antennas, antenna bases, coaxial lines, connectors, SWR bridges, etc. Computer, video, commercial off-the-shelf and other low powered RF systems are not acceptable experience.

The support staff shall be proficient in the operation and maintenance of 406-420 Mhz M/A Com digital trunking radios, conventional technology radios, control heads and accessory equipment. The staff should be initially proficient in most products currently in use by the Ames user community. These include MRK, ~~MPA, MPD~~, P7100, M7100, ~~RANGR~~, and Orion trunking transceivers, MLS, MVS, MDX and PCS conventional transceivers, ~~RANGR-DeskTop~~, and Orion DeskTop, ~~S825 and S550 control heads~~, and headset, speaker microphone, earpiece microphone, and various other accessory equipment that adapt to the aforementioned radio systems. The support staff shall also be proficient in M/A Com EDACS radio trunking technology, and Zetron Series 4000 console and station ring down systems. The support staff

members must also possess written and verbal skills sufficient to effectively communicate with customers and over radios.

The support staff will only be authorized unsupervised access to the Ames radio trunking system hub located in N254, the security radio dispatch console system in N241, the fire station ring down system in M580, the ATC air-to-ground radio landline link in M158, and other government furnished equipment and systems, after PSGS management has assured the Task Requestor that each technician is fully competent to be allowed unsupervised access to these systems.

The support staff at a minimum must have one staff member authorized to test, diagnose, modify or attempt to repair any components of the M/A Com digital trunked radio repeater system station equipment (other than utilizing pre-installed test and measurement equipment). This authorization will be provided by the Task Requestor upon each staff member's satisfactory completion of M/A Com's Master III EDACS technician station equipment maintenance course. Equally so, any subcontractors that PSGS wishes to use to support the repair, pre-maintenance, or modification of the Ames digital trunked radio repeater system, at minimum must possess a facility repair certification from M/A Com.

Because logistics duties and working at heights above rooftops will be part of the support staff's responsibilities, each staff member is required to possess a valid California Driver's license at all times, be able to support lifting the maximum unassisted weight allowed by OSHA regulations, work on ladders, work on rooftops, and upon on-site certification by Code Q, operate man lifts in support of working on antenna systems and towers. PSGS shall not supplement staff at extra cost to the government, should any of their staff not be able to support any of the aforementioned requirements. If any staff member does not possess a valid man lift operator's certification from Code Q, they will be required to secure this certification at the government's time and expense. These requirements assume the availability of Code Q for training and certification.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 210

Modification Number: 002

Task Title:	Trunking Radio
Planned End Date:	July 31, 2010
Task Requester Name:	William Notley

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE *(Please mark an X in all that apply)*

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to increase the Travel, Training, Material, and Subcontractor/Vendor budgets.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 241.000.2
 Modify existing Task Number

Task Title: Team Performance, Process and Risk Analysis

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task provides support to aviation and space projects in the area of Human Systems Integration with a focus on team performance, process analysis and risk assessment. Projects may apply to different operational domains (e.g., ground systems for space vehicles, aircraft maintenance in airlines or repair stations, ramp and flight operations in commercial transport). This is possible because a number of human factors methodologies, instruments and approaches lend themselves to cross-domain applications.

One subtask is to provide domain expert support to Next Generation information technologies on the flightdeck (e.g., Class 1, 2, 3, Electronic Flight Bags). The FAA's Advisory Circular (AC No. 120-76A) defines an Electronic Flight Bag (EFB) as an electronic display system intended primarily for cockpit/flightdeck or cabin use. This electronic information management device helps flight crews perform flight management tasks more easily and efficiently with less paper. It is intended to reduce, or replace, paper-based reference material often found in the Pilot's carry-on Flight Bag, including the Aircraft Operating Manual, Aircrew Operating Manual, and Navigational Charts (including moving map for air and ground operations). In addition, the EFB can host advanced software applications that provide moving maps, weather displays, the overlay of various information sources such as ATC, NOTAMS, etc.). The development of such technologies requires adherence to FAA guidance, the development of procedures and training, and a system by which team performance can be reliably monitored and evaluated. Facilitating industry meetings for the purpose of sharing information and lessons learned is a critical part of developing efficient and effective implementation strategies.

Specific requirements:

Electronic Flight Bag Project:

1. Provide domain expertise related to FAA and flight operations requirements and constraints that contribute toward integrating the Electronic Flight Bag into the flight deck and implementing and evaluating EFB use in flight operations.
2. Preparation of literature and state-of-the-practice review for advanced software on the flightdeck.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 241

Modification Number: 001

Task Title:	Team Performance, Process and Risk Analysis
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Barbara Kanki

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend period of performance on task to July 31, 2010. Add the following requirements:

- Collection and analysis of data to support the literature and state-of-the-practice technical reviews that will support development of an approach to evaluate changes in pilot/ATC/dispatch roles and responsibilities in the context of NextGen technologies

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 241

Modification Number: 002

Task Title:	Team Performance, Process and Risk Analysis
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Barbara Kanki

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to add the following new requirement:

- * Collection and analysis of data and the preparation of materials to support the development and refinement of an Initial Test Plan for investigating pilot-to-pilot verification of Data Communications information

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 241

Modification Number: 003

Task Title:	Team Performance, Process and Risk Analysis
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Barbara Kanki

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010 and to add the following new requirement:

- Preparation of materials for the development of a study to measure crew performance on new flightdeck procedures and technologies. Included are:
 1. Development of study objectives for crew performance evaluation
 2. Development of experimental design and subject/participant requirements
 3. Development of procedures for performing the crew performance evaluation
 4. Development of scenario event sets for the crew performance evaluation

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 255

Modification Number: 001

Task Title:	Contract Management Module Support
Planned End Date:	July 31, 2010
Task Requester Name:	Patricia Hudson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 255

Modification Number: 002

Task Title:	Contract Management Module Support
Planned End Date:	September 30, 2010
Task Requester Name:	Patricia Hudson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 272.000.2
 Modify existing Task Number _____

Task Title: IEM, e-Gov, and CFO Project Support

Planned Start Date: October 1, 2009 Planned End Date: October 30, 2009

ACITS2 SOW Reference C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this task is to obtain stabilization, training, and testing support for the eTravel implementation for the month of October 2009. This includes enablement support for business systems end users, cultivating new ways of working, and institutionalizing new behaviors to help with a successful implementation of eTravel at ARC.

Specific Task Requirements

Staff with excellent communications, reporting, process analyses, stabilization, training and testing skills and are knowledgeable in eTravel.

- ***Business Readiness***
 - **Communications**
 - Support Center Business Readiness Lead
 - Support and develop module-specific communications strategies
 - Support and develop detailed project communications plans
 - Develop written communications as necessary
 - Provide support in communicating information to end-users and stakeholders
 - Support organizational outreach activities, developing & providing presentations
 - Develop and perform project knowledge transfer to Civil Service personnel

- Participate in bi-weekly Business Readiness and IEMP Communications telecons
- **Training**
 - Define end-user training requirements for new applications and systems
 - Develop training plans and strategies for new applications and systems
 - Assist in the development of ARC-specific training materials
 - Coordinate Lab Sessions, User Workshops and regularly assess changing training needs and progress
 - Provide oversight of training execution, including logistical preparation of training rooms, set-up of training equipment and training database maintenance, if available
 - Conduct post-training analysis and submit written report to project manager during active training.
 - The training report should include information regarding the number of end-users trained, how well the training was received, note gaps that require additional training, and make recommendations regarding potential improvements to the training courses and/or materials
 - Develop additional job aides, user guides and process documentation, as needed
 - Participate in Train-the-Trainer and deliver training, as needed
 - Provide SATERN support, acting as system administrator of IEMP and Code C training.
- ***Testing & Stabilization***
 - Support stabilization of Center, e-Gov, and IEM applications and systems
 - Work the resolution of end user process, operations and reporting issues, providing analysis and interpretations
 - Provide support for drop-in clinics, help desk processes, user aids, and related activities for the stabilization phase of assigned projects.
 - Define ARC-specific testing requirements for new applications and systems
 - Develop testing plans, scenarios and scripts, as needed
 - Coordinate logistics for performing testing at ARC, as needed
 - Assist in the testing process at the Center and at the Competency Center, as needed
 - Document and communicate issues

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 255

Modification Number: 001

Task Title:	Contract Management Module Support
Planned End Date:	July 31, 2010
Task Requester Name:	Patricia Hudson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 255

Modification Number: 002

Task Title:	Contract Management Module Support
Planned End Date:	September 30, 2010
Task Requester Name:	Patricia Hudson

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 272.000.2
 Modify existing Task Number _____

Task Title: IEM, e-Gov, and CFO Project Support

Planned Start Date: October 1, 2009 Planned End Date: October 30, 2009

ACITS2 SOW Reference C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this task is to obtain stabilization, training, and testing support for the eTravel implementation for the month of October 2009. This includes enablement support for business systems end users, cultivating new ways of working, and institutionalizing new behaviors to help with a successful implementation of eTravel at ARC.

Specific Task Requirements

Staff with excellent communications, reporting, process analyses, stabilization, training and testing skills and are knowledgeable in eTravel.

- ***Business Readiness***
 - **Communications**
 - Support Center Business Readiness Lead
 - Support and develop module-specific communications strategies
 - Support and develop detailed project communications plans
 - Develop written communications as necessary
 - Provide support in communicating information to end-users and stakeholders
 - Support organizational outreach activities, developing & providing presentations
 - Develop and perform project knowledge transfer to Civil Service personnel

- Participate in bi-weekly Business Readiness and IEMP Communications telecons
- **Training**
 - Define end-user training requirements for new applications and systems
 - Develop training plans and strategies for new applications and systems
 - Assist in the development of ARC-specific training materials
 - Coordinate Lab Sessions, User Workshops and regularly assess changing training needs and progress
 - Provide oversight of training execution, including logistical preparation of training rooms, set-up of training equipment and training database maintenance, if available
 - Conduct post-training analysis and submit written report to project manager during active training.
 - The training report should include information regarding the number of end-users trained, how well the training was received, note gaps that require additional training, and make recommendations regarding potential improvements to the training courses and/or materials
 - Develop additional job aides, user guides and process documentation, as needed
 - Participate in Train-the-Trainer and deliver training, as needed
 - Provide SATERN support, acting as system administrator of IEMP and Code C training.
- ***Testing & Stabilization***
 - Support stabilization of Center, e-Gov, and IEM applications and systems
 - Work the resolution of end user process, operations and reporting issues, providing analysis and interpretations
 - Provide support for drop-in clinics, help desk processes, user aids, and related activities for the stabilization phase of assigned projects.
 - Define ARC-specific testing requirements for new applications and systems
 - Develop testing plans, scenarios and scripts, as needed
 - Coordinate logistics for performing testing at ARC, as needed
 - Assist in the testing process at the Center and at the Competency Center, as needed
 - Document and communicate issues

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 272

Modification Number: 001

Task Title:	IEM, e-Gov, and CFO Project Support
Planned End Date:	January 31, 2010
Task Requester Name:	Darlene Gross

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through January 31, 2010, to continue providing outreach, communications and training support for the implementation and stabilization of the eTravel Project.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 272

Modification Number: 002

Task Title:	IEM, e-Gov, and CFO Project Support
Planned End Date:	July 31, 2010
Task Requester Name:	Darlene Gross

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 272

Modification Number: 003

Task Title:	IEM, e-Gov, and CFO Project Support
Planned End Date:	September 30, 2010
Task Requester Name:	Darlene Gross

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until September 30, 2010 and to add Travel budget.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 285.000.2
 Modify existing Task Number

Task Title: Code AT Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The Aeronautics Projects Office (Code AT) serves as the primary interface between the Aeronautics Research Mission's projects and their work at Ames. Code AT provides management oversight and programmatic support for the aeronautics work performed at Ames.

The overall requirement of this task is to provide support to the Aeronautics projects' officials located at Ames, to include: technical writing and desktop publishing, document support, IT facility and safety support, and other associated programmatic support. This task also provides systems support services for non-ODIN supported systems to Code AT, including advisory support for hardware, software, and network required to support the Code AT mission.

Specific Task Requirements

The contractor shall provide the complete range and scope of skills and capabilities needed to fully meet the requirements of this SOR and to meet the requirements of the deliverables that will be defined by the government Task Requestor. The contractor shall not rely upon the government in order to meet these deliverables, except where GFE is specified in this SOR.

The specific requirements for this work are:

- Provide program/project management support, technical documentation support, establish and maintain databases relating to aeronautics programs and projects, and related support

services for the aeronautics projects supported by the Aeronautics Projects Office. This includes such activities as the development of presentations, reports, project management documentation, desktop publishing, technical writing & editing, maintaining action item lists, and posting documents and updates to knowledge sharing site.

- Support for workshops, conferences, and program/project and Code AT sponsored meetings. Such support will include planning, operational support, and follow-on activities and documentation.
- Coordinate safety and equipment inspections and assist in resolving any issues found; ensure that safety equipment is inspected to ensure operability and order maintenance as required.
- Provide support for the Code AT Office in the implementation of Center policies and directives.
- Provide support for the Center's Disaster Assistance & Rescue Team through participation in the Medical Emergency Response Team.
- Respond to basic non-ODIN desktop support requests made through the Integrated Technology Support Center, as needed.
- Provide information technology support services for non-ODIN desktop systems and printers to include advice on acquisitions and operational support requirements. In addition, for the non-ODIN systems and equipment, provide the following support:
 - Conduct IT security checks, apply security patches, and perform system/data recoveries after any break-in or virus problems, in accordance with NASA security requirements;
 - Perform regular backups of end-user data; monthly full backups and daily incremental backups with an 8-week retention period.
 - Maintain office equipment conducting periodic tests, performing user level maintenance, ordering spare parts & supplies, and providing instruction on proper use.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 285

Modification Number: 001

Task Title:	Code AT Support
Planned End Date:	July 31, 2010
Task Requester Name:	Lynda Haines

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to extend the period of performance through July 31, 2010.

- Replace the default Airspace Concept Evaluation System (ACES) run time visualization, known as the Visualization/Scenario/Simulation Tool (VST), with that of the ACES Viewer

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 286

Modification Number: 001

Task Title:	NextGen Systems Analysis, Integration, and Evaluation Project SLDAST Support (Code AFO)
Planned End Date:	January 31, 2010
Task Requester Name:	Jorge E. Bardina

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

This modification removes the NextGen System Level Design, Analysis, and Simulation Tools (SLDAST) research focus area from the task. The associated Performance Deliverables #1 and #2 are removed as well.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 292.000.2
 Modify existing Task Number

Task Title: DOE NNSA/NASA World Wind Project Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.5, C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goal of this effort is to assist NASA in both maintaining and expanding technical leadership using a NASA developed geospatial visualization solution, NASA WorldWind. This task supports this goal by delivering WorldWind to provide visualization capabilities for complex technical analysis and concept prototyping, as well as training, all of which will rapidly adapt to the needs of NASA as well as NASA customers. In keeping with this goal, this task will deliver, over time, a highly adaptable version of NASA WorldWind to the Department of Energy (DOE)/National Nuclear Security Administration (NNSA) and other sponsors.

Elements of this task include:

- Management, planning and coordination of the World Wind project
- Developing software and documentation
- Analysis of results
- Training
- Testing and evaluation
- Development and presentation of design materials
- Establishment, configuration and maintenance of information servers
- Establishment of server infrastructure to deliver OGC compliant data
- Progress and status reports

The critical nature of this work mandates that this work be conducted on a rapid basis to support the operational needs as well as national security shortfalls. This work requires that contractor team members apply with the DOE for a level “Q” security clearance.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 292

Modification Number: 001

Task Title:	DOE NNSA/NASA World Wind Project Support
Planned End Date:	July 31, 2010
Task Requester Name:	Patrick Hogan

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task until 7/31/10, update the ODC table, and add deliverables PD#7 – PD#14.

- Support Multi-Sector Planner (MSP) simulation experiments and attend meetings
- Conduct ATC familiarization to operations and education communities
- Provide liaison and collaboration with FAA and other government facilities, with prior approval
- Support SmartSkies education activities

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 298

Modification Number: 001

Task Title:	NextGen Concepts and Technology Development Project DAC Support (Code AFO) and ATC Familiarization Support (Code AF)
Planned End Date:	October 23, 2009
Task Requester Name:	Shannon J. Zelinski

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

This modification closes this task, effective October 23, 2009

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 300.000.2
 Modify existing Task Number

Task Title: Code I ITS Procurement

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1, C.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task will support Information Technology and Communications procurement activities that are not specific to a single Code I task, but may cross multiple tasks or support a Code I function not covered in the Code I tasks, such as emergency support.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 300

Modification Number: 001

Task Title:	Code I ITS Procurement
Planned End Date:	July 31, 2010
Task Requester Name:	Yutsuan Ku

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

This task is being modified to extend the period of performance until July 31, 2010.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 300

Modification Number: 002

Task Title:	Code I ITS Procurement
Planned End Date:	April 15, 2010
Task Requester Name:	Yutsuan Ku

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to close the task effective April 15, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION
(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 306.000.2
 Modify existing Task Number

Task Title: Flight Deck and Airspace Operations Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The Human Systems Integration Division (Code TH) advances human-centered design and operations of complex aerospace systems through analysis, experimentation, and modeling of human performance and human-automation interaction to make dramatic improvements in safety, efficiency, and mission success (<http://human-factors.arc.nasa.gov/>). A significant component of the Division's work is in support of the Aeronautics Research Mission Directorate (ARMD) through the Advanced Controls and Displays, Air-Ground Integration, Flight Deck Display, and the Human-Centered Systems research groups.

This task request is part of a long-term effort in support of the Airspace Systems and Aviation Safety programs within ARMD (see <http://www.aeronautics.nasa.gov/nra.htm>). In Airspace Systems, the goal is to conduct Air Traffic Management (ATM) research in support of the Next Generation Air Transportation System (NextGen) initiative to increase the capacity, efficiency, and flexibility of the National Airspace System (NAS). Code TH will conduct research in support of the Airspace and Airportal Projects within the Airspace Systems Program. Specifically, the Division will support the technical areas of Dynamic Airspace Configuration (DAC), Separation Assurance (SA), and Super Density Operations (SDO).

The goal of the Aviation Safety Program is to provide concepts, tools, and technologies that will help ensure the safety of the NAS during a transition to the Next Generation Air Transportation System. Challenges include anticipated significant increases in air traffic, increased reliance on automation, increased diversity of air vehicles, and increased complexity in the system. Code

TH will conduct research to support two of the four projects within the Aviation Safety Program, the Aircraft Aging and Durability and the Integrated Intelligent Flight Deck Projects.

A.2.1 Specific task requirements:

The following details task support requirements:

- Provide aeronautics human factors engineering and research expertise to research, develop, and evaluate advanced Airspace Systems concepts.
- Provide aeronautics human factors engineering and research expertise to research, develop, and evaluate advanced Aviation Safety concepts, tools, and technologies.
- Evaluate Airspace Systems and Aviation Safety concepts. Propose, design, and conduct evaluations of those concepts, and provide recommendations based on those evaluations
- Work closely with other project engineers and researchers in identifying and evaluating solutions to challenges posed by increased air traffic, the diversity of air vehicles in that traffic, and the complexity of the airspace.
- Continued work to identify the risks and best practices currently used in regards to composite materials, examination of the NASA ASRS database for incidents related to the inspection of composite structures and a review of industry practices and experiences.
- Support and actively participate in the planning and execution of simulation and field evaluation activities to assess the role of automation in ATM concepts, including resource planning, research design, data collection and analysis, and the preparation of research reports. Simulations will be performed in the areas of Separation Assurance and Controller-managed Spacing.
- Work closely with other project engineers to coordinate a team of programmers in implementing and documenting changes to the Multi Aircraft Control System as required by planned simulations.
- Conduct coding of verbal communications data from the DAC and MSP simulations.
- Using human performance data, subjective measures, and eye-tracking data, develop a situation awareness design tool, along with conceptual and computational models of situation awareness, to be used by designers of flight deck displays.
- Conduct a simulation in the Human-centered systems Lab to examine pilots' taxi performance with an ATC-commanded speed and bounded speed, as well as, paired departure procedures at the runway.
- Continue to oversee the development of the 737NG simulator facility.
- Design the content and layout for an on-line decision-making field guide designed to support engineers designing pilot and ATC automation for the Next Generation Air Transportation System.
- Design prototype displays that will support pilots' weather-related decisions as they occur on the flight deck.
- Conduct high-resolution eye tracking of operators in order to assess the cognitive and perceptual processes that are involved in complex tasks, such as those performed on the flight-deck of modern aircraft.
- Support the development of a study that allows for a cognitive work analysis of single pilot operations in technically advanced aircraft such as very light jets.
- Depending on the experience level, provide guidance and support for less-senior researchers involved in the projects.

- Provide project briefings and demonstrations to project and program management and external organizations as required.
- Interact with NASA researchers, researchers from other institutions (including academia), air traffic control professionals, and other contractors to develop and execute research plans and schedules and to identify milestones and deliverables.
- For all experiments and simulations, support will be provided for data collection, data reduction and computational data analyses.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 306

Modification Number: 001

Task Title:	Flight Deck and Airspace Operations Support
Planned End Date:	July 31, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010; there are no changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 306

Modification Number: 002

Task Title:	Flight Deck and Airspace Operations Support
Planned End Date:	November 30, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010 and to add the following new requirement:

Within the *Cognitive and Attentional Processing Research* subtask, requirements are added to conduct research that evaluates the scanning patterns of pilots as they utilize information from the cockpit display of traffic information (CDTI) and synthetic vision systems (SVS) supporting the Integrated Intelligent Flight Deck Technologies (IIFDT) project within the Aviation Safety Program. This research is aimed at evaluating techniques for facilitating integration of

information across visual displays. The research involves human part-task experiments testing performance with multiple displays. Included will be all phases of the research including designing experiments, software development, administering the experiments to human participants, analyzing the results, and preparing journal publications

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 308.000.2
 Modify existing Task Number

Task Title: NASA Colab and Special Projects Group Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2009

ACITS2 SOW Reference C1.1, C1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The objective of this task is to provide an information technology (IT) services to Code D Special Projects and Programs Group, who will have only occasional requirements for information technology support or prefer to obtain information technology support a per-event basis. This capability is essential, for example, in the case of a one-time event taking place at Ames which requires a range of technology solutions. Time is of the essence in deploying solutions to support the event, and there is not sufficient time to go through the Task Order Document process to obtain that support.

The basic process will be:

1. Code D Special Projects Group requirements are identified by and/or to Task Manager
2. The task analyzes the requirements and provides the required estimates, factoring in existing constraints
3. Task Manager provides the Task Requester with an estimated cost and delivery schedule
4. The customer accepts the terms and provides Task with additional funding to meet requirements.
5. Code D Special Projects Group authorizes the task to proceed with the work and requests the completion date (used in metrics)
6. The task delivers the completion date

7. The task completes the work and provides a report on the actual completion date and the total cost of the associated with the event

Project Requirements will fall into one of the following categories:

Collaborative Technologies, Tools, and Environments

Provide support for Center and Agency-wide collaborative IT technology initiatives, proposals, experiments, and pilots. This includes analysis of open source and commercial technology solutions, tools, and virtual environments; design, development and deployment of collaborative environment and technology products; and investigation of tools and solutions used within NASA and external industries. Post-deployment, task may utilize not-traditional outreach techniques to encourage adoption of these technologies, tools, and environments within the agency enterprise. Provide project management support in managing and implementing collaborative projects between internal NASA projects and non-NASA individuals. Provide Program Management Support to NASA to support participatory exploration elements of the space program. Participate in the specification, development and implementation of software tools to support online community building and generation of community-generated content for NASA.

Analysis of Best Practices and Services

Provide support for Center and Agency-wide IT initiatives, including analysis and possible implementation requirements and impacts, pilot programs to explore technology usage, investigation and testing of specialty tools and technologies as well as development and delivery of briefings to management.

Sustainability Events

Assist NASA in the development and planning of a new program aimed at helping solve some of the world's most challenging sustainability problems. This initiative will consist of high impact, technology-based events, which will appeal to innovators in the field and gain the attention of the public. These events will assemble the world's greatest thinkers and actors around a particular sustainability challenge. Successful outcomes will be aided through the facilitation of collaboration in advance, during, and post these events.

These events are aimed to have production quality as well as web-based public participation options. This program is supported by the Space Operations Mission Directorate (SOMD) and the Innovative Partnership Program (IPP) office at NASA HQ and is a concept in development.

The first event will be focused on the sustainability of water and is planned around an upcoming launch of the Space Shuttle in November 2009, or February 2010.

This task is focused on the first of three phases. The three phases are:

- Phase I - Conceptualization and Planning - The goal of this phase is to develop the concept of this event to the point that there is an actionable plan for delivering the first

event, there is a brand identity, branding material and a branding plan, there is a budget for the first event, there is an initial list of participants for the first event, there are preliminary agreements with partners who can be expected to help fund, promote, or support the event, and finally there are preliminary agreements in place with likely participants of this first event.

- Phase II – Execution – The execution of the plan defined in phase I, including the preparation and execution of the first event.
- Phase III – Follow-up – Following up on the action items and ideas resulting from the first event and leveraging the plans and lessons learned from the first event to develop plans for the second event.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 308

Modification Number: 001

Task Title:	NASA Colab and Special Projects Group Support
Planned End Date:	3/19/2010
Task Requester Name:	Robert Schingler

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until March 19, 2010; as the first Sustainability Event has been delayed until March '10. In addition, this modification adds the requirement to provide program management support for the event.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 308

Modification Number: 002

Task Title:	NASA Colab and Special Projects Group Support
Planned End Date:	3/19/2010
Task Requester Name:	Robert Schingler

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to add two new requirements:

1. The development of a database application and a web front end, which collective supports the research, presentation and interactivity requirements of the Launch event working group
2. The meeting venue and associated technology set-up and support for the Launch:Water event.

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION *(This section to be completed by Task Requester)*

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 313.000.2
 Modify existing Task Number

Task Title: Human Manual and Operational Control Performance

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Operationally Based Vision Assessment: In September 2005, work started on a feasibility study for the USAF, specifically the 311th Human Systems Wing, to determine the feasibility of assessing differences in pilot operational performance resulting from changes in visual function. The feasibility study was intended to determine whether it would be feasible to assess the impact of visual function differences on operational performance using flight simulators.

A second phase of the study was funded in July 2007; in this phase, back-to-back comparisons of candidate projector technologies was performed. Additionally, image-generation and projector artifacts such as motion-induced blur and spatio-temporal aliasing were investigated. This second phase culminated with a technology demonstration in August 2008; as a result of that successful demonstration, the Air Force has chosen to fund the next phase of the program, the Technology Development phase. This two year phase will include:

- development of operational scenarios to test the operational impact of vision,
- the conduct of studies to assess the impact of vision on operational performance
- further assessment of projector and image generator technology capabilities.

The work at NASA-Ames in code TH will be done with collaboration of Simlabs at NASA Ames, and the 711th Human Systems Wing of the Air Force.

Rotorcraft mode-transition: This project will be looking at issues related to mode transition in helicopter flight control laws. Current military helicopters, and their civilian derivatives, have a number of flight control modes, which must be available and each is developed for a specific phase of flight. Research will be conducted into potential methods of automated/semi-automated mode transitions. This will likely include some pilot modeling, simulation, and pilot model identification.

A.2.1 Specific task requirements:

The specific requirements of this task are to:

1. Development of a multi-CRT monitor part-task simulation, capable of stereo image presentation
2. Development of a part-task simulation utilizing Sony SXRD projector
3. Design & configure lab space - maintain and upgrade laboratory hardware.
4. Running of experiments and data analysis.
5. Identification of manual control models including perceptual characteristics.
6. Project Management
7. Continuous wavelet transformation script development

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 313

Modification Number: 001

Task Title:	Human Manual and Operational Control Performance
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Barbara Sweet

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010 and make the following changes to the requirements.

Delete the following requirement:

- Continuous wavelet transform (CWT) MATLAB script development

Reduce requirements for the following:

- Operationally Based Vision Assessment (OBVA): Conduct part-task simulation studies using integrated system. Reduce the number of simulation research studies for the period February 1, 2010 to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 314.000.2
 Modify existing Task Number

Task Title: Program Analysis & Business Integration Division Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C 1.1, C 1.3

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The purpose of this task is to provide program/project performance management support as they relate to process and software tools development, implementation, and application in support of the Program Analysis & Business Integration Division. This will include the development, implementation, maintenance and training on computer-based project portfolio performance analysis, tracking systems, and related tools for the programs or projects assigned under this task.

A.2.1 Specific Task Requirements

The contractor shall furnish expertise in the use of commercial-off-the-shelf software and in the development and configuration of supporting applications, and provide interfaces, and reports to program and project management support in the following areas:

- Schedule management
- Project control and risk management
- Task management and analysis
- Earned value management
- Configuration management for controlled baseline changes for the financial and resources guidelines.

In addition, the contractor's support will include, but not be limited to:

- The analysis of data contained in planning and execution documents to ensure effective and efficient use of the software and related tools.
- Support for the generation of program and project schedules, critical path analysis, and related what-if scenario planning and analysis of actual performance against plans.
- Allocate resource usage to the plan and schedule.
- Creation, maintenance, and update of reporting documents for both formal and ad hoc management reviews.
- Training on the applications, interfaces, and reports to ensure the end users have a thorough working knowledge of the tools being provided by the contractor.

The contractor shall provide the complete range and scope of skills, capabilities, software system skills, services, projects and programs logistics, etc. needed to fully meet the requirements of this SOR and to meet the requirements of the deliverables as defined in this document.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- Property Location
- Unused equipment

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 314

Modification Number: 001

Task Title:	Program Analysis & Business Integration Division Support
Planned End Date:	July 31, 2010
Task Requester Name:	Olga Stotzky

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through July 31, 2010. Schedule Deliverables to provide Monthly Financial Reports, SD#5 through SD#14, were added to the task.

Contractor is expected to provide technical expertise in the use of standard software and hardware applications (MS Word, PowerPoint, Excel) and understand the function, operation, and purpose of current ASP computer-based technologies and their impact upon the National Airspace System. The contractor shall be capable of the planning and implementation activities needed to configure and network computer systems, plasma screens, and other display technologies required during set-up operations. Contractor shall understand and provide for the electrical requirements of all systems in their display(s).

Contractor shall establish and provide an ongoing relationship with the FAA and JPDO, and develop a communicable understanding of the technologies resident within each agency. The relationship with these agencies will foster the exchange of relevant technical data. This work will be monitored and conducted at the NASA Ames Research Center.

Specific required tasks include:

1. Computer Technology Display Planning, Design, and Management
2. Development of Informational Materials for Technology Displays
3. Organization and Delivery of Technical Meetings, Workshops, Symposia, and Other Activities as Defined
4. Additional Support for ARMD Tasks and Activities as Required
5. Procure speakers for Ames Aeronautics Technical Series or ARMD Technical Seminars

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and Internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: _____ 315 _____

Modification Number: _____ 001 _____

Task Title:	NASA Airspace Systems Program Technology Information Dissemination and Display Activities
Planned End Date:	July 31, 2010
Task Requester Name:	Barry Sullivan

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION
(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 319.000.2
 Modify existing Task Number

Task Title: AS9100 Program Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The Ames Office of the Chief Engineer is responsible for providing oversight to the Center in the areas of management systems, and business and technical processes to ensure that all applicable elements of the Center are compliant with various Center, Agency, customer, and industry requirements and Standards. This task's focus will address all the Center's line and Project organizations which perform any role within the lifecycle of the Center's complex and critical aerospace IT systems.

SCOPE OF WORK

The Contractor will support the Ames Research Center as a consultant to the Ames' Chief Engineer's Office Program by providing expertise in the areas of management systems, business and technical processes with particular emphasis on corrective action processes and systems. The Contractor will, as required:

- A. Assist the ACE in providing oversight over the Center's projects, facilities, and organizations to ensure compliance with required Center, Agency, and customer requirements.
- B. Assist the Center develop policies, procedures, and processes as means to either improve an existing condition, fill a gap, or meet a new requirement.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: _____ 319 _____

Modification Number: _____ 001 _____

Task Title:	AS9100 Program Support
Planned End Date:	July 31, 2010
Task Requester Name:	Don Mendoza

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 320.000.2
 Modify existing Task Number

Task Title: Independent Security Certification

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

FISMA (Federal Information Security Management Act) requires each federal agency to develop, document, and implement an agency-wide program to provide information security for the information and information systems that support the operations and assets of the agency, including those provided or managed by another agency, contractor, or other source.

A key component of FISMA is the certification of security controls of those information systems. FISMA requires periodic testing and evaluation of the effectiveness of security policies, procedures, practices, and controls of all IT Systems. This testing and evaluation shall be performed with a frequency depending on risk, but no less than every three years.

Moderate and High System Certifications:

As specified in NIST (National Institute Standards and Technology) SP (Special Publication) 800-37, when the potential impact level is moderate or high, certification agent independence is needed and justified. In these cases the Certification Agent:

- Provides an independent assessment of the system security plan (prior to the assessment activities associated with the certification process) to ensure the plan provides a complete and consistent security specification for the information system that is adequate to meet all applicable security requirements

- Should be independent from the persons directly responsible for the development of the information system and the day-to-day operation of the system
- Should be independent of those individuals responsible for correcting security deficiencies identified during the security certification

The primary goal of this task is to support the efforts of the NASA Certification and Accreditation (C&A) Program in conducting IT system certification of NASA's Information Technology (IT) Systems throughout the Agency. The systems to be certified are those in the MODERATE or HIGH security category in accordance with Federal Information Processing Standard (FIPS) 199, NIST SP 800-60, NIST SP 800-37, and NASA policies.

In Fiscal Year 2010, the Agency expects approximately 260 moderate or high systems to be certified or recertified. This task will need to certify approximately 40 of those systems during the October 2009 – January 2010 period.

In addition to the primary goal of certifying the systems, the task must also provide support to the overall FISMA program. This secondary goal includes the following duties:

- Performing quality audits on C&A activity to ensure consistency and quality of certifications.
- Providing support to Certification and Accreditation Officials (CAO's) and System Owners (SO's) on questions regarding the C&A process.
- Working with CAO's to reduce C&A costs
- Identifying opportunities to improve NASA's FISMA compliance program

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 320

Modification Number: 001

Task Title:	Independent Security Certification
Planned End Date:	January 28, 2010
Task Requester Name:	Tandy Daras

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.))

This modification is to close the task as of January 28, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 322.000.2
 Modify existing Task Number

Task Title: Aerospace Cognitive Engineering Group Support
Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010
ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goal of this task is to provide support to extend the Matessa-Polson list model and Pavlik memory theory work in ACT-R to provide training time and error prediction capabilities. Specifically it is the aim of this work to provide the prediction capabilities in such a form that they can be integrated into CogTool (John et al, 2004).

Specific requirements are below:

- 1) Develop an ACT-R model of list learning using the latest memory theory developed by Phil Pavlik. This theory would allow the model to show the effects of spaced practice over the span of days and weeks.
- 2) A report comparing the training time predictions of the ACT-R model to those from the Matessa-Polson List Model.
- 3) Integrate the ACT-R model into CogTool. Lists would be created from demonstrated sequences of behavior.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 322

Modification Number: 001

Task Title:	Aerospace Cognitive Engineering Support
Planned End Date:	July 31, 2010
Task Requester Name:	Michael Feary

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010. No changes to requirements.

2. Development of a UI spec. During this phase the contractor will revise the specification of the new user interface and guide the development of future additional interface elements.if budget permits or additional funds obtained, and by request of JPL:

3. Review and Advise on a New Display Design for the JPL Central DSN controllers. During this phase the contractor will support JPL in developing an improved display design for selected JPL Central control station displays.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 328

Modification Number: 001

Task Title:	Concept User Interface Redesign of the Jet Propulsion Lab (JPL) Deep Space Network (DSN) Displays
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Jeff McCandless

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

Extend period of performance on task to November 30, 2010. No change to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 334.000.2
 Modify existing Task Number

Task Title: Reimbursable Communications Projects

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task combines all chargeback or reimbursable projects performed by the Networking and Communications functional areas within the Code I Directorate. This includes the Communications Cable Plant (CCP), Video, LNA/data, Trunking Radio, and Voice disciplines. Note: Routine Add/Moves/Changes are not performed on this task. All work will be tracked by discrete chargeback subtasks and will be performed according to each customer's defined statement of requirements (SOR) and fully funded through a customer's validated service request (SR) based on a formal estimate.

Note: This task allows for funding at the subtask level.

All requirements for this task shall be funded by client funds. Funding for implementing this activity shall be from a full charge of costs back to the requesting customers including appropriate overhead fees. This task shall develop, with government input, procedures to recover all costs for this activity through estimating and billing procedures compatible with the existing customer Service Request and SERV processes.

Work will be staffed by contractor personnel from the institutionally funded tasks or out-sourced when necessary.

A.2.1 CCP Support

The Communications Cable Plant (CCP) refers to all internal building cable infrastructures and the external communications cable plant on the federal-owned land occupied by NASA, the U.S. Navy, the California National Guard Moffett Station and NASA Research Park. This comprises the Ames/Moffett Field campus.

The purpose of the CCP portion of this task is to plan, discover, design, install, terminate, document, maintain and, or repair new or existing Fiber Optic, Coaxial and Copper cables within any Moffett building structures or that occupy underground conduit at Moffett Field, and provide connectivity within or between Buildings.

The task shall provide all of the resources necessary to design, procure, implement, document and deliver to operations the new inside cable plant (building infrastructure). These activities shall support, but not be limited to, either providing or oversight of the following functions:

- Engineering analysis and design
- Technical consultation with customers and Code I to develop requirements
- Define and document requirements
- Develop estimates and deliver written proposal with cost, schedule, design and description of work
- Complete implementation activities consisting of, but not limited to, procurement of required materials, oversight and/or lead teams in all required installation activities in coordination with Code I and customers
- Perform procurement, placement and termination of new or existing cable.
- Create/update documentation for modifications to the I/ECCP
- Maintenance, monitoring, management and/or repair procedures and policies
- Report status and metrics for work performed

Schedules will be established prior to commencement of work and funds will be committed and obligated before work begins.

A.2.2 LNA Support

The Local Network Administrators provides networking support for medium infrastructure installations. These activities shall support, but not be limited to, the following functions:

- Provide guidance for identifying customer data requirements
- Install and test cables (e.g. voice, data, video, copper or coax)
- Configure and install network equipment
- Coordinate user cutovers and assist in user configuration changes
- Activate/De-activate network ports
- Update network documentation

A.2.3 Video Support

Video support work required is to provide daily operational support, systems design expertise, and maintenance services to the NASA-Ames Research Center in the areas of analog and digital video, audio, control, multi-media, collaborative, and intercom operations, routing, distribution, display, presentation, and collaboration systems, infrastructures, facilities, and technologies.

Scope and goal of the video support is focused on the development, implementation, operation, maintenance, documentation, and status reporting of customer funded research systems, service infrastructures, and technology support operations. These activities shall support, but not be limited to, the following functions:

- Comprehensive design
- Engineering, installation
- Configuration
- Operations
- Documentation
- Status reporting
- Maintenance of control, security, video projection, collaboration, audio, public address, intercom, recording, display, and camera systems

A.2.3 Voice Support

Voice support work is to provide consultation, forward engineering, design, implementation, and documentation to NASA Ames Research Center's cabling infrastructure, related to the PBX based analog phone system. This will be primarily in the area of troubleshooting/repair of existing cabling infrastructure that cannot meet new customer voice requirements, but could include addition of new cabling infrastructure to support new reimbursable voice requirements.

In addition, voice support includes appropriate consultation, forward engineering, design, implementation, and documentation of cabling and appropriate power redundancy systems for the upcoming Voice over IP (VoIP) system either as an internal IO project, or in support of a roll out of this system in a new location per a customer reimbursable request.

A.2.4 Trunking Radio Support

Trunking radio support is to provide consultation, forward engineering, design, implementation, and documentation of requests to enhance NASA Ames Research Center's trunking radio system or community of users. This could include purchase of additional radios, or extension of trunking radio service where expected quality of service is not met. This service can also include extension of communication services across satellite systems.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 334

Modification Number: 001

Task Title:	Reimbursable Communications Projects
Planned End Date:	July 31, 2010
Task Requester Name:	Jerry Walatka

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance through July 31 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 335.000.2
 Modify existing Task Number

Task Title: AM and FAP Supersonics Program Software Development Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

The Advanced Aircraft Project (AAP) and its team members use a number of different modeling software in the areas of fluid dynamics, electromagnetics and infrared sciences. The AAP requires enhancement, maintenance, and updates of these codes, as well as computer aided design (CAD) and grid generation needed to run these codes.

The major goals of the AAP support work are to:

- Develop, enhance, and apply modeling, viewing, CFD, and Computational Electromagnetics (CEM), and Computational Infrared (CIR) program software used by the AM Office and AAP.
- Provide CAD, grid generation, and post-processing support needed by the software codes.

This task will also assist the Fundamental Aeronautic Program in the development of autonomous system analysis and design. Software support and enhancements to unstructured Euler methods and to optimization methods that employ Euler analysis will be a focus of the work. Porting of grid perturbation, flow solver, flow visualization, and user interface tools to personal computers using Windows XP may be required.

Surface shape design methods using unstructured Euler CFD codes offer significant savings in grid generation time and permit highly complex geometries with movable control surfaces to be evaluated relative to structured grid methods. Current design methods require extensive

resources on parallelized computers to perform vehicle shape optimization of complete configurations with movable control surfaces at multiple design points. Multipoint design is necessary with the large range of flow field conditions encountered during entry, descent and landing to improve the stability and control while achieving the best aerodynamic performance. The stability and controllability of such configurations is a major concern to the survivability of these aircraft. Execution of this task will provide vast improvements to the computational performance, realistic design constraints, and flow-field boundary control.

A.2.1 Specific Task Requirements

A.2.1.1 AM Code Application Support

- Develop, apply, and improve the efficiency of, CFD, CIR, and CEM software used by the AM Office.

The following is a listing of some of the modeling software:

CFD	CEM	CIR
CNS-FV	CARLOS	CIRCE
OVERFLOW	ARCCEM	MET1
	AIM	Pixel Registration

In addition, there are grid generation, data manipulation and viewing, and CAD software, which include, but are not limited to:

Grid Generation	Viewing	CAD
GRIDGEN	PLOT3D	SolidWorks
HYPEROH	FAST	Unigraphics
HYPGEN	AVIEW	ACAD

- Description of Software Functions – This section will be split into three different categories: 1. modeling software; 2. CAD/grid generation software; and 3. viewing/general support.
 - Modeling Software:

The modeling software is written in FORTRAN, C and C#. The modeling software is required to run on user specified platforms. The current user platforms include Microsoft Windows XP and 2000 computers, SGI workstations and supercomputers running the IRIX operating system. Required support of the modeling software will include both development and maintenance of the codes on the platforms described above. Porting software from one platform to another is also required, and a thorough understanding of, and the ability to program in, C#, C and FORTRAN languages are required.

- CAD/Grid Generation Software:

The CAD software (Pro E and Unigraphics) and the GRIDGEN software are purchased from offsite vendors. These programs are used to create and modify geometry and create grids necessary for supporting the modeling software listed above. Geometry models may be created using Pro E or Unigraphics software, or from other sources, and require modification. Grid generation is required using the geometry models developed or obtained from outside sources.

- Viewing/General Support:

Expertise in running Tecplot360 and FAST is required for this task. Viewing results from the modeling software may require some software development in order to display required results or features. General support will include writing scripts to improve efficiency or reduce workloads, and writing pre- or post-processing software tools to assist in preparing data or analyzing data.

A.2.1.2 FAP Software Development Support

- Provide FORTRAN based software support for unstructured tetrahedral-grid-based algorithms, and the suite of programs that provide surface shape optimization. Develop methods of data visualization, grid generation, and data manipulation as required. Assist with preliminary optimization setup of new vehicles. Evaluate the implementation of the inlet/exhaust boundary conditions in AIRPLANE and suggest improvements. Modify MESH3D with user-specified refinement regions for more accurate analysis of sonic boom pressure signatures. Implement a hybrid mesh with a prismatic outer flowfield grid. Explore sonic boom optimization using existing gradient-based optimization methods and explore non-gradient methods for minimization of discontinuous design spaces. Port software tools to Windows, Cygwin, and Linux environments as needed. Document progress of significant developments using web-based program updates when necessary.

- Enhance suite of external optimization tools for alternative vehicles:

Provide automatic handling of full span computations triggered by non-zero beta angles for optimization of lateral stability design objectives (rolling, and yawing moment objective terms). Provide optimization setups for new geometries with special requirements. Automate the suite of programs where possible for an autonomous analysis and design center. Improve the run-time efficiency and range of applicability of the Intersect Clean Up program (ICU), which is used to prepare unstructured surface meshes of intersecting components for use in Euler unstructured flow simulation.

- Provide software support with web-based program up-dates of existing unstructured tools:

Provide support of software associated with the unstructured methods MESH3D and AIRPLANE. This software will need to be maintained and periodically examined, should programming errors arise. Unforeseen problems due to system changes or porting to other platforms may also require support. Document all software updates using the existing limited-access web pages.

- Port design tools and high-fidelity codes to Windows, Cygwin, and Linux systems:

Utilities and programs developed on SGI systems will be ported to Windows XP computer systems, as needed. Programs formerly executed only on SGI Origin compute servers will be ported to the Columbia system or current multiprocessor computer at Ames.

- Reduce the computational requirements of gradient computations:

As part of automated aerodynamic numerical optimization, an existing adjoint solver named SYNPLANE may need to be integrated with a constrained gradient-based optimizer named NPSOL, specifically with regard to wing shape function gradients.

- Implement geometric design constraints in NPSOL:

Provide software to implement geometric constraints in a number of ways so that realistic constraints can be easily addressed. For specified points, provide thickness and maximum and minimum vertical position constraints. For chordwise span stations, provide maximum thickness-to-chord ratio (t/c) constraints. Provide a method to keep original thickness and also a method to read in specified thickness constraint values.

- Nozzle boundary conditions:

Generalize the implementation of boundary conditions for inlets and nozzles in AIRPLANE and develop strategies to implement boundary conditions to simulate explosions for the ascent abort mission scenario.

- Sonic Boom refinement regions in MESH3D:

Generate sonic boom refinement regions within MESH3D that are swept at the Mach angle with annular or elliptical shapes in the X-Z plane. Modify MESH3D so that the user can stretch cells within refinement regions. Implement a hybrid mesh with a prismatic grid subdivided into tetrahedra in the outer mesh domain.

- Explore alternative optimization techniques for sonic boom minimization:

Explore sonic boom minimization using existing gradient based techniques and non-gradient methods capable of finding design space minimums of discontinuous design space. Develop a simplified extrapolation method based on a report by Hicks and

Mendoza (NASA TM X-1477, published 1967) for rapid and robust sonic boom assessment for use in sonic boom minimization efforts.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 335

Modification Number: 001

Task Title:	AM and FAP Supersonics Program Software Development Support
Planned End Date:	July 31, 2010
Task Requester Name:	Michael Schuh

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 336.000.2
 Modify existing Task Number

Task Title: Mission Assurance System Support
Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010
ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

The task will provide support services to the Mission Assurance Systems (MAS) group in the Human Systems Integration Division, in N262. These services include Unix systems support, database administration and development efforts.

The Unix system support includes responsibility for all issues related to Linux and or Unix servers and associated networks. This includes (but is not limited to) support of user account management, software installation and issues, system security, hardware configurations and repairs and network configuration and implementation.

Database administration and development efforts includes (but is not limited to) installation, backup, upgrade and performance tuning of MySQL databases, migrating data from different database formats to MySQL database format and writing system level scripts to improve work-flow.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 336

Modification Number: 001

Task Title:	Mission Assurance System Support
Planned End Date:	July 31, 2010
Task Requester Name:	Irene Tollinger

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010. No other changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 336

Modification Number: 002

Task Title:	Mission Assurance System Support
Planned End Date:	November 30, 2010
Task Requester Name:	Irene Tollinger

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. No other changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 341.000.2
 Modify existing Task Number

Task Title: NextGen Airspace Project SA Support (Code AFC)

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.4, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

This task will provide support to the NASA NextGen (Next Generation Air Transportation System) Airspace Project, with emphasis on the Separation Assurance (SA) research focus area within the Automation Concepts Research Branch (Code AFC). The NextGen Airspace Project, under the Airspace Systems Program, directly addresses the fundamental air traffic management (ATM) research needs for NextGen by developing revolutionary concepts, capabilities, and technologies that will enable significant increases in the capacity, efficiency and flexibility of the National Airspace System (NAS).

The overall requirement of this task is to provide software development and maintenance support.

A.2.1 Specific Task Requirements

The contractor shall provide the complete range and scope of skills, capabilities, server and laboratory hardware and software systems, services, logistics, etc. (other than GFE) needed to fully meet the requirements of this Task Order Document and to meet the requirements of the deliverables that will be defined by the government Task Requestor.

The specific requirements for this work are:

- Provide software development and maintenance for the NextGen Airspace Project Separation Assurance (SA) research focus area (RFA)

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 341

Modification Number: 001

Task Title:	NextGen Concepts and Technology Development Project SA Support (Code AFT)
Planned End Date:	July 31, 2010
Task Requester Name:	Russell Paielli

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to clarify the Separation Assurance (SA) software development and maintenance requirements for Automated Conflict Resolution. Previously, these requirements were categorized under Automated Airspace Concepts (AAC) Analysis and Java-based Conflict Resolution (CR) Software. The support requirements for these two areas have been combined into a single area, Automated Conflict Resolution, and have been updated as the research progresses.

This modification also extends this task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 341

Modification Number: 002

Task Title:	NextGen Concepts and Technology Development Project SA Support (Code AFT)
Planned End Date:	November 30, 2010
Task Requester Name:	Russell Paielli

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.))

No change to requirements, this modification is to extend the task to November 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 343.000.2
 Modify existing Task Number

Task Title: Constellation Knowledge Management Systems (KMS) Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4 & C1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task supports the Exploration Systems Mission Directorate (ESMD) Constellation Program (CxP) Systems Engineering and Integration Program Office (SE&I) Software and Avionics Integration Office (SAVIO) Knowledge Management Systems (KMS) projects. The KMS project develops Information Specifications and Standards, and Software Applications that enable interoperability across the Constellation Program.

The following is a list of projects under the purview of the KMS task:

- **Constellation Data Architecture (CxDA) Standards** effort develops the Specifications and Models that define the Constellation Program overall Data Architecture. From a documentation perspective this primarily manifests itself through the development and publishing of the CxDA series of volumes, CxP70172. This set consists of volumes specifying various aspects of the CxDA, including Naming and Identification Rules, Data Types, Metadata, Information Types and Structures, Model Naming and Design Rules, Algorithms and Equations, and Encoding Rules. The work of this task also includes undertaking sufficient ontology modeling to develop the CxDA specification and documentation, participation in Constellation Program and Project meetings, site visits, and supporting KMS and CxDA outreach activities.
- **Constellation Data Architecture System of Registries (CxDA SoR)** effort designs and develops the core and application software for KMS Registry-based software systems. KMS is developing a series of software applications based on a core, reusable group of software

modules. Based upon this core, additional application-specific software is developed to create individual software applications. Each Registry is designed to manage a specific type of data, and to work as a single logical registry in a distributed federation.

- **Command, Control, Communication, and Information – Information Architecture (C3I IA)** effort develops telecommand and telemetry definitions and metadata standards and specifications for the Constellation C3I framework. This specification work is defined in the CxP70122 Volume 4 document. The work of this task also involves evaluating compression approaches, defining serialization and encoding methods, evaluating and developing standards, and evolving the standard to support Constellation Project requirements. This task also requires ontology modeling of the telecommand and telemetry definitions and metadata, and the development of application models to enable creation of pilot and prototypes.
- **NASA Exploration Initiatives Ontology Models (NExIOM) Standard** develops specifications for the tool and application, independent representation and exchange of engineering modeling and simulation data. The NExIOM standard includes the development of ontology models, techniques of generating XML files from the ontologies, the development of representation standards such as NExIOM XML SchemaPlus, the development of the NExIOM Standard Vocabulary (NSV) for engineering properties, X3D models and standards, and associated explanatory documentation. This task also develops the CxP70041 NExIOM standard, associated XML and ontology schemas, and sample datasets/examples. In addition, this also requires participation in Constellation Program and Project meetings, site visits, and supporting KMS and NExIOM outreach activities, including Constellation Program Working Groups.
- **Data Aggregator (DAggr)** software is intended to provide integrated access to information stored in Constellation Program ICE Cradle, Primavera, CAIT, Risk Management (CxIRMA) and MAS systems. A key requirement for establishing integrated access is an ability to determine how a data item stored and managed by one system may connect to the data item stored and managed in another system. DAggr is architected to be built on top of the System of Registries (SoR) models, application software, and infrastructure that already exist. As such, this task leverages the existing efforts of SoR, providing reuse, extensions, modifications, and new development as needed to develop the DAggr system. This task will require working with the DAggr sub-teams

Each of the above project areas requires effort from one or more of the following categories:

- Standards, Specifications, and Document Development and Production
- Standards Modeling
- Software Application Modeling
- Software Application Development
- Pilots, Prototypes, and Demonstrators

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 343

Modification Number: 001

Task Title:	Constellation Knowledge Management Systems (KMS) Support
Planned End Date:	July 31, 2010
Task Requester Name:	Paul Keller

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010.

- Provide software development and maintenance for the NextGen Concepts and Technology Development Project Traffic Flow Management (TFM) and Airspace Super Density Operations (ASDO) RFAs
- Perform data collection, reduction, and analysis for the NextGen Concepts and Technology Development Project, with a focus on airspace super density operations

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 346

Modification Number: 001

Task Title:	NextGen Concepts and Technology Development Project TFM/ASDO Support (Code AFH)
Planned End Date:	July 31, 2010
Task Requester Name:	Wardell Lovett

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 346

Modification Number: 002

Task Title:	NextGen Concepts and Technology Development Project TFM/ASDO Support (Code AFH)
Planned End Date:	November 30, 2010
Task Requester Name:	Wardell Lovett

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.))

No change to requirements, this modification is to extend the task to November 30, 2010.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

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- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 347

Modification Number: 001

Task Title:	Aviation Systems Division Technical / Programmatic Support (Codes AFS/AF)
Planned End Date:	July 31, 2010
Task Requester Name:	Michelle Eshow

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to add new Collaborative Workflow Architecture Phases 2, 3, and 4 support requirements (as this subtask progresses) and to clarify requirements for Aviation Systems Division (Code AF) Facility Safety Manager support.

This modification also extends this task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 347

Modification Number: 002

Task Title:	Aviation Systems Division Technical / Programmatic Support (Codes AFS/AF)
Planned End Date:	July 31, 2010
Task Requester Name:	Michelle Eshow

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

The purpose of this modification is to add new Collaborative Workflow Architecture Phase 3 support requirements as follows: (a) validate the air traffic management (ATM) data sources (except CM_sim, ARTCC, TRACON), (b) monitor these data source in real-time for outages, and (c) take appropriate actions to notify users or recover the data. Also, write validation scripts and apply them to all data imported into the data warehouse. Enhance the interface to show the user the validation status of the data returned by a query. This modification is also to increase the training budget.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 347

Modification Number: 003

Task Title:	Aviation Systems Division Technical / Programmatic Support (Codes AFS/AF)
Planned End Date:	September 30, 2010
Task Requester Name:	Michelle Eshow

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

This modification extends the period of performance to September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 349.000.2
 Modify existing Task Number

Task Title: Aviation Systems Division Aerospace Simulation Research & Development Support (Code AFS)

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2009

ACITS2 SOW Reference C.1.4, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

The Aviation Systems Division is responsible for developing and maintaining an internationally recognized capability in the application of automation science technologies to problems of national interest. The current emphasis is in the area of air traffic management (ATM), which is responsive to NASA's mission to revolutionize aviation. The Aerospace Simulation Research & Development Branch (Code AFS) is working in conjunction with Los Angeles World Airways (LAWA) to help evaluate runway configurations at Los Angeles International Airport (LAX) in order to help with the introduction of Class 6 aircraft and minimize any impacts to safety or traffic capacity. The project is known as the LAX North Airfield Safety Study (LAX-NASS). Code AFS's NASA FutureFlight Central is a national Air Traffic Control/Air Traffic Management (ATC/ATM) simulation facility dedicated to solving the present and emerging capacity problems of the nation's airports. Initial runway configuration evaluation tests were completed in July 2009.

The overall purpose of this task is to support Code AFS efforts to develop airport analyses, studies, and products. This task is part of a long-term research effort in ATM that involves daily interaction and collaboration with other staff members (e.g., civil servants, Ames contractors, academia).

A.2.1 Specific Task Requirements

The contractor shall provide the complete range and scope of skills, capabilities, data analyses, software engineering, and database management needed to fully meet the requirements of this Task Order Document and to meet the requirements of the deliverables that will be defined by the government Task Requestor.

The specific requirements for this work are:

- Oversee the creation and delivery of a video for Los Angeles Airport (LAX) that explains the runway configuration simulation project and the results.
- Oversee video production and post-production activities to conclusion.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
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- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 349

Modification Number: 001

Task Title:	Aviation Systems Division Aerospace Simulation Research & Development Support (Code AFS)
Planned End Date:	July 31, 2010
Task Requester Name:	Bimal Aponso

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 349

Modification Number: 002

Task Title:	Aviation Systems Division Aerospace Simulation Research & Development Support (Code AFS)
Planned End Date:	September 30, 2010
Task Requester Name:	Bimal Aponso

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.))

No change to requirements, this modification is to extend the task to September 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 352.000.2
 Modify existing Task Number

Task Title: Training, Automation, and Operational Decision Making (ODM)

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

The goal of the task is to develop and evaluate new approaches to training focused on Operational Decision Making (ODM) in increasingly automated aerospace environments. This task will involve developing computer simulation capabilities, designing and developing training concepts and experimental protocols, general laboratory management, data analysis and report preparation. The simulation capability element will include low-fidelity tools development, experimental control programs, and data acquisition and preliminary analysis programs.

ODM:

Support is required in analyzing ODM and automation training requirements. Research into these human systems issues, design and conduct of a study of aerospace ODM leading to training requirements, collection and analyses of data, and input and participation in generation of a “white paper” that summarizes these analyses is required. It is expected that this work will span this contract year and the option period.

Design and produce a video demonstration showing how the girih-tile tessellation would form a basis for displays that would have made the Space Shuttle Columbia sensor data from the STS 107 mission far more visible that it was at the time of its launch.

Experimental and field studies:

Support is required for data analysis activities related to the development of experimental and field studies (including flight simulation) to investigate aeronautical decision making. Included are:

1. Development of experimental and field studies (including flight simulation) and related scenarios for those studies, to investigate aeronautical decision making
2. Collection of data in above studies, statistical analysis of collected data, and generation of the reports of results.

Failure Modes and Effects Analysis:

Support is required to develop and evaluate new techniques for visual simulation and visual displays to enhance vehicle control. This will involve developing simulation capabilities, designing and developing display concepts and experimental protocols, general laboratory management, data analysis and report preparation. The simulation capability element will include visual database development, experimental control programs, and data acquisition and preliminary analysis programs. Included is the analysis of human systems issues raised by the Joint Planning and Development Office's (JPDO) Next Generation Air Transportation System (NextGen) plans.

Specific support includes:

1. Design and conduct a Failure Modes and Effects Analysis (FMEA) of human systems issues as raised by the Joint Planning and Development Office's (JPDO) Next Generation Air Transportation System (NextGen) plans. FAA, JPDO, and NASA documents, as well as relevant project plans and available research results will be provided by the NASA Principal Investigator.
2. Input and participation in the generation of a white paper that summarizes these analyses

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 352

Modification Number: 001

Task Title:	Training, Automation, and Operational Decision Making (ODM)
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Immanuel Barshi

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010, there are no changes to requirements.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 352

Modification Number: 002

Task Title:	Training, Automation, and Operational Decision Making (ODM)
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Immanuel Barshi

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010; there are no changes to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 354.000.2
 Modify existing Task Number

Task Title: Rotorcraft Design and Development Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

The purpose of this task is to develop and utilize enhanced methods for the design and development of advanced vertical takeoff and landing (VTOL) aircraft in support of the aviation Advanced Design Office (ADO) of the Aeroflightdynamics Directorate (AFDD) of the U.S. Army's Aviation & Missile Research, Development, & Engineering Center (AMRDEC). AFDD is located at NASA Ames Research Center, Moffett Field, CA.

The ADO evaluates the impact of advanced technology on system cost and capabilities, evaluates the potential of advanced VTOL concepts for DoD missions, and develops, correlates and calibrates VTOL aircraft performance and sizing methodologies. The ADO also engages in the conceptual design of rotorcraft and other VTOL concepts in support of emerging Army and Department of Defense (DoD) requirements. ADO is comprised of a small staff of four engineers and is actively engaged in two major conceptual design efforts, as well as two methodology development activities. Further contractor support is required to support code development and assist in these conceptual design activities.

Included in this support are the following:

1. Development of improved interfaces between NASA Design and Analysis Rotorcraft Code (NDARC) synthesis/sizing code and Comprehensive Analytical Model of Rotorcraft Aerodynamics and Dynamics (CAMRAD) code.
2. Support of computational fluid dynamics (CFD) analysis of conceptual design aircraft.
3. Extension of sizing methodologies and user interfaces utilized in the ADO to support novel conceptual design concepts and improve tool productivity.

4. Demonstration of modified methodologies on relevant conceptual design activities.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 354

Modification Number: 001

Task Title:	Rotorcraft Design and Development Support
Planned End Date:	July 31, 2010
Task Requester Name:	Jeffrey Sinsay

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 355.000.2
 Modify existing Task Number

Task Title: NTTS Operations Support
Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010
ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The NASA Technology Transfer System (NTTS) supports NASA's technology transfer activities and is the Agency wide storage for all of NASA's intellectual property data. The users of the NTTS include: Headquarters and Center Innovative Partnership Program (IPP) Offices, Patent Counsel Offices (PC), Inventions and Contributions Board (ICB), Center Software Release Authorities (SRAs), NASA Center/Project and Program Management, Business Development Managers, Innovators (Inventors, Software Authors and Technology Contributors), External Partners, SBIR/STTR programs and the general public.

The Contractor shall provide broad scope of information technology (IT) services for the NASA Technology Transfer System (NTTS) user base. These services will include user support services, training, testing, documentation, report generation, data feed, interface design, software enhancements, custom query development, and other similar functions. The following define the specific requirements for the Tier 1 and Tier 2 support.

Tier 1 Support:

The Tier 1 support will provide Help Desk support for a prime shift of 12 hours per day beginning at 8:00 AM EST and ending at 8:00 PM EST, Monday through Friday, except for Government holidays. Support outside of the defined prime shift will be provided as required for functions that must occur outside of normal operations (i.e., system upgrades, maintenance, etc.). The specific duties of the Tier 1 support will include, but not be limited to the following:

- Help Desk Access – User support will be provided by phone, email and web site.
- User Accounts – The IDMAX, single sign-on, and other account requests will be processed

either directly by the Help Desk personnel or through direct contact with the proper authority. The Help Desk will provide all of the user contact including completion schedule, access verification, and upgrade information.

- Customer Issue Tracking – User requests, performance issues, bugs, suggested enhancements, etc. will be processed by the Help Desk. All pertinent documentation will be included in the NTTS tracking/ticketing system. The Help Desk will contact the appropriate developers/managers to resolve the issues and report the findings/schedule back to the customer.
- Customer Training – User training will be provided as required. The training will include, but not be limited to, new user orientation, basic system operations, and specialized training.
- Documentation – User and training manuals will be created, enhanced, and maintained as required.
- System and Component Testing – Testing support will be provided for all enhancements and new development activities.
- System Monitoring and Troubleshooting – The Help Desk will assist the Tier 1 Team in addressing performance issues. All reported problems will be investigated and validated before escalating to higher levels.
- Metrics – The Help Desk will track performance metrics that will include, but not be limited by:
 - Number of requests received
 - Time required to process requests
 - User accounts added
 - Customer issues reported by system, user location, problem type, etc.

Tier 2 Support:

Tier 2 support will be provided by the Help Desk both on an as needed and as scheduled basis. The specific duties of the Tier 2 support will include, but not be limited to the following:

- Report Generation – User custom reporting requirements will be supported.
- Data Feeds – The scheduled processing of external data feeds will be supported. These feeds include, but are not limited to: FACS, congressional district updates, SBIR/STTR handbook updates, etc. The support may include direct processing or monitoring of automated procedures.
- Custom Queries – Support for user custom query requests will be provided.
- Interface Design – The design of new interfaces based on user requests and required system enhancements will be supported.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 355

Modification Number: 001

Task Title:	NTTS Operations Support
Planned End Date:	7/31/2010
Task Requester Name:	Robin Orans

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This task is being modified to extend it till July 31, 2010. The task is also being modified to provide legacy data extraction and migration support. The task will also be providing support in extracting report and query logic from the legacy NTTS application. The task will provide end-user support in making sure that the old data is kept available on the legacy system. Scheduled Deliverables, SD#5-14 were added to the task.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 355

Modification Number: 002

Task Title:	NTTS Operations Support
Planned End Date:	9/30/2010
Task Requester Name:	Robin Orans

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This task is being modified to extend it until September 30, 2010. The task is also being modified to add the following new requirements; 1) Provide general IT support as needed for the operationalization of the NTTS application, 2) Provide support to modify the IT Security Plan for NTTS system to include the systems hosting SBIR and STTS applications, 3) Add Material budget for the purchase of Software needed for the Tier 1 & 2 Help Desk.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 356.000.2
 Modify existing Task Number _____

Task Title: Mission Design Center Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2009

ACITS2 SOW Reference C.1.1, C.1.2, C.1.3, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The Mission Design Center (MDC) is responsible for the analysis, design, and simulation of new mission concepts, as well as the development of mission proposals and Concept Study Reports. To accomplish these tasks, the MDC team relies on a small network of computer consisting of approximately 16 client workstations backed by 7 Windows 2003 servers for exchanging data and running network licensed applications.

The purpose of this task is to provide support to the MDC systems by ensuring network stability, database administration and data exchange integrity, as well as to perform general systems maintenance and timely MDC software installation and upgrades.

The goal of this task is to provide Ames Research Center (ARC) with the project management and information systems support as defined below in support of the Mission Design Center here at ARC.

Special Requirement:

MDC Systems Support

The task will be required to support the MDC on a 24x7 rotation approximately one month out of the year. During this time, the response time will be set at one hour. At all other times, the regular support model should apply.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 357.000.2
 Modify existing Task Number

Task Title: Generic Airspace Operations Research Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

Under the Human Systems Integrated Division, Code TH, the task goal is to develop and evaluate new approaches for Generic Airspace Operations and to provide air-traffic controller expertise to support requirements for Distributed Airspace Configuration (DAC) research.

Included in this support are the following detailed requirements:

- Support the FAA's Generic Airspace project by developing interface and visual design enhancements and procedures for the Controller Information Tool (CIT) and other air traffic control displays. This support will include provide computer graphics, rapid prototyping, and research support.
- Participate in design and development of aeronautical research simulations, participate in actual simulation experiments, data collection, and analysis
- Evaluate software developed and provide feedback to development engineers
- Attend NASA workshops and meetings as needed to provide air traffic controller perspective and insight

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 357

Modification Number: 001

Task Title:	Generic Airspace Operations Research Support
Planned End Date:	July 31, 2010
Task Requester Name:	Dr. Richard Mogford

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 31, 2010 and remove the following requirements from the task:

- Support the FAA's Generic Airspace project by developing interface and visual design enhancements and procedures for the Controller Information Tool (CIT) and other air traffic control displays. This support will include provide computer graphics, rapid prototyping, and research support.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 357

Modification Number: 002

Task Title:	Generic Airspace Operations Research Support
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Richard Mogford

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to November 30, 2010. No change to requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 358.000.2
 Modify existing Task Number

Task Title: NextGen Concepts and Technology Development Project DAC
Support (Code AFO) and ATC Familiarization Support (Code AF)

Planned Start Date: October 26, 2009 Planned End Date: January 31, 2010
ACITS2 SOW Reference C.1.4, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

This task will provide support to the NASA NextGen (Next Generation Air Transportation System) Concepts and Technology Development Project, with emphasis on the Dynamic Airspace Configuration (DAC) research focus areas within the Systems Modeling & Optimization Branch (Code AFO).

The overall requirement of this task is to provide support for ATM and human factors research and development efforts in air traffic control, flight deck, and other fields within the Aviation Systems Division (Code AF), to provide air traffic controller (ATC) subject matter expertise to the DAC research focus area (RFA) and other RFAs, to provide ATC familiarization to NextGen researchers, and to support SmartSkies education activities (Code VCE).

A.2.1 Specific Task Requirements

This task will be funded at the subtask level:

- 001: DAC Generic Airspace Support
- 002: ATC Familiarization Support
- 003: SmartSkies Support
- 004: DAC ATC Subject Domain Support
- 005: MSP Research Support

The contractor shall provide the complete range and scope of skills, capabilities, hardware and software systems (as required), services, logistics, etc. needed to fully meet the requirements of this TOD and to meet the requirements of the deliverables that will be defined by the government Task Requestor. The specific requirements for this work are:

- Conduct research and testing on new generic airspace controller tools
- Create new computer-based decision support systems and associated procedures
- Attend NASA workshops and meetings as needed to provide air traffic controller perspective and insight, and address workshop/meeting assigned actions
- Support Multi-Sector Planner (MSP) simulation experiments and attend meetings
- Conduct ATC familiarization to operations and education communities
- Provide liaison and collaboration with FAA and other government facilities, with prior approval
- Support SmartSkies education activities

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 358

Modification Number: 001

Task Title:	NextGen Concepts and Technology Development Project DAC Support (Code AFO) and ATC Familiarization Support (Code AF)
Planned End Date:	January 31, 2010
Task Requester Name:	Shannon J. Zelinski

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change in requirements.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 358

Modification Number: 002

Task Title:	NextGen Concepts and Technology Development Project DAC Support (Code AFO) and ATC Familiarization Support (Code AF)
Planned End Date:	July 31, 2010
Task Requester Name:	Shannon Zelinski

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 358

Modification Number: 003

Task Title:	NextGen Concepts and Technology Development Project DAC Support (Code AFO) and ATC Familiarization Support (Code AF)
Planned End Date:	November 30, 2010
Task Requester Name:	Shannon Zelinski

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

No change to requirements, this modification is to extend the task to November 30, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 359.000.2
 Modify existing Task Number

Task Title: Human Automation Interaction Support

Planned Start Date: February 1, 2010 Planned End Date: July 31, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

One of the goals of the Human Systems Integration Division at NASA Ames is to advance human-automation interaction within the space exploration domain. The TH Division is involved in developing software tools that support various aspects of human and robotic space flight. The task will focus on the development of user interfaces that control and manage simulators for training of astronauts and flight controllers.

Detailed requirements:

- Develop prototype code to support demonstrations and advanced concepts.
- Participate in application architecture design.
- Work closely with design team to implement detailed design specifications.
- Develop new features for production applications.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 359

Modification Number: 001

Task Title:	Human Automation Interaction Support
Planned End Date:	July 31, 2009
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

No change to requirements

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 359

Modification Number: 002

Task Title:	Human Automation Interaction Support
Planned End Date:	September 30, 2010
Task Requester Name:	Trent Thrush

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the Period of Performance to September 30, 2010 and add budget for Other Direct Costs (ODCs).

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 360.000.2
 Modify existing Task Number

Task Title: IT Technical & Systems Administration Support – Code JS

Planned Start Date: March 15, 2010 Planned End Date: July 31, 2010

ACITS2 SOW Reference C.1.1, C.1.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Provide support for the Logistics and Documentation Services Division's (Code JS) non-ODIN servers, operating systems, peripherals, and non-ODIN server/desktop based software. Support encompasses the Code JS Division Mac file server, print server, and plotters; the Reproduction Solaris UNIX Print Servers and Windows front-end desktop; the Xerox multifunctional devices (MFDs); the Xerox Device Manager; and the two Library Ariel Inter-Library Loan (ILL) servers.

Provide support for operating systems and associated software required for the above hardware and the development and maintenance of databases, applications, and reports in support of Division operations. These requirements include the development and maintenance of the Division's Security Plan, software version control, backups, and SOP documentation for supported systems, hardware, and software. Provide database and application maintenance for the Repro Tracking System, the FuelMaster database, and Center support for Agency Library access and management software, and Center library website support.

Specific areas of support to include:

- Maintenance of Code JS IT Security Plan
- Support for JS Division Server
- Maintenance of the Repro Tracking System (RTS) database (FileMaker Pro)
- Support for Reproduction Solaris UNIX Print Servers and Windows front-end desktop
- Support for JS division printers, plotters (non-ODIN)

- Xerox multifunctional devices (MFDs) support
- Xerox Device Manager
- Maintenance of the FuelMaster database
- Support for two Library Ariel Inter-Library Loan (ILL) servers
- Maintenance of Library-specific software, including: Galaxie online catalog client, OCLC cataloging software, & Dialog search
- Support as the Library Webmaster
- Maintain Code JS backup system
- Generate periodic library statistics for JS management by collecting statistical data, combining in spreadsheets, and creating related reports & graphic representations.
- Website statistics reporting.
- by manually pulling down statistics from public web server, preparing log files, and running monthly stat generator;
- IT technical support for all library-related questions from staff in support of researchers

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 360

Modification Number: 001

Task Title:	IT Technical & Systems Administration Support – Code JS
Planned End Date:	September 30, 2010
Task Requester Name:	John Adams

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until September 30, 2010 and to make the following changes:

1. Delete the following requirement: “Website statistics reporting by manually pulling down statistics from public web server, preparing log files, and running monthly stat generator”. This report is no longer required. It's been automated and is now generated by the library staff.
2. Delete the following requirement: "Support for JS Division Server". The JS server will be transitioned to the Code I server farm within the next 30 days. Upon completion, this support is no longer required.

3. Add the following requirement: "Develop and maintain MySQL database to replace the current Repro Tracking System (RTS) FileMaker Pro database."

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 361.000.2
 Modify existing Task Number

Task Title: NASA Technology Transfer System (NTTS) Applications Specialist

Planned Start Date: June 15, 2010 Planned End Date: September 30, 2010

ACITS2 SOW Reference C1.1 and C.1.3

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Background: The NASA Technology Transfer System (NTTS) is a complex system for reporting and managing NASA's Intellectual Property

Scope of Task: The primary goals of this task are to provide NTTS support for the Innovative Partnership Program (IPP) Team/Office and Patent Counsel/Intellectual Property Law Team in the data management of all intellectual property, technology transfer and partnership activities.

Requirements:

Serve as a member of the Agency NTTS Application Team and communicate NTTS requirements to the personnel in the IPP and PC offices at the Center at which they are located.

Coordinate Center requirements for NTTS to the NTTS Project Office.

Submit bug reports reported by Center users through NTTS Ticketing System.

Solicit feedback from users for improvements to NTTS and submit feature and modification requests through NTTS Ticketing System

Track Center NTTS tickets, test solutions and communicate testing results to software developers through the NTTS Ticketing System and via e-mail as appropriate.

Participate in Application Specialist Teleconferences (Telcons are held Monday and Wednesday with additional ones scheduled on an "As Needed Basis").

Participate on NTTS sub-teams in the development of additional features of NTTS (e.g., reports, user guidelines, and training material).

Approve NAMS IdMAX NTTS accounts for all Center users.

Setup NTTS User privileges within NTTS for all Center users.

Train Center users on the features and use of NTTS

Work with Center users to develop documentation and procedures, (letters, reports, forms, reminders, etc.) specific to their work.

Coordinate with Center IPP Team/Office IT Systems

Coordinate and assist Center users when support is needed from NTTS technical support and Help Desk.

Develop, prepare, and maintain technology transfer data reports for monthly, quarterly, and annual IPP requirements.

Report on technology transfer trends, patterns, and recommendations for improvement to the IPP Team/Office.

Communicate professionally and courteously via telephone, e-mail and in person.

Regularly evaluate workload and prioritize according to time-sensitive deadlines.

Submit a monthly technical report for inclusion in the contract monthly technical report in a manner that fully documents performance requirements

Draft and update a Desk Guide to document main aspects of this position.

Understand Leads/Partnership management process and relevant NTTS Modules and Center processes.

Security Requirements: All work performed under this task shall be consistent with NASA security policies

Location of Position: Langley Research Center, Hampton, VA

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION
(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 362.000.2
 Modify existing Task Number

Task Title: Fatigue Risk Management System (FRMS) Support

Planned Start Date: April 5, 2010 Planned End Date: November 30, 2010

ACITS2 SOW Reference C.1.4

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

NASA has a long-standing interest in understanding the consequences and causal factors of flight-crew fatigue. A current study addresses issues related to commercial transport crew scheduling to support an effective Fatigue Risk Management System (FRMS).

The objective of this task is not to demonstrate that human fatigue tends to degrade performance. This has been well established and well documented. Rather, the goal is to understand (or, at least, set up the procedures with which to understand) the levels and characteristics of those latent and proximate factors of fatigue whose confluence could predict unacceptable flight- or cabin-crew performance. The approach to achieving this goal is to extract and fuse information from large, diverse, linked data sources to identify such potential contributing factors and compare these to more objective metrics of flight- or cabin-crew fatigue. Associations among situational data and objective metrics will provide a reliable basis for specifying effective interventions or mitigations that will minimize degraded performance. The ability to reliably and comfortably ascertain fatigue levels during actual airline operations is needed to achieve this objective. NASA's objective is to provide the technology and methodology to enable a data-driven and scientifically based process for an air carrier to continuously monitor and manage safety risks associated with fatigue-related error; i.e., a FRMS.

The accomplishment of the required research will entail the acquisition, processing, integration, and interpretation of large quantities of diverse numerical and textual data. Operational data on

operator physiological effects will need to be combined with performance data to ascertain operational indicators, and operational effects of fatigued pilots. NASA has entered into a collaborative research agreement under which it will be granted access to such data. Flight-recorded data on the performance of the aircraft, physiological and cognitive data describing the performance of the crewmember, and textual demographics and safety reports for information on latent and proximate causal factors will be gathered for multiple subjects during actual operations. Data will be annotated with a common time-stamp to enable their linkage. Specifically, NASA will be granted access to the following data from four experiments with flight or cabin crews and several different schedule strategies: Aircraft Performance Data; Demographic Information: Schedule data (rosters); and Physiological and Cognitive Data.

Specific Requirements:

1. NASA will provide the contractor with access to all of the textual, physiological, and biological data identified above and to the related anomalies in performance that NASA has extracted automatically from the flight-recorded data and from relevant textual reports.
2. The contractor will review, analyze, and interpret these data acquired during the first 2 experiments (one with flight crew and one with cabin crew) to find answers to as many of the five questions to be provided as possible. It is not likely that questions pertaining to the effects of scheduling strategy can be fully answered before completion of the final two experiments.
3. The contractor will use SAFTE (Sleep, Activity, Fatigue and Task Effectiveness) model, modified as appropriate for the available data, and the associated computer application called FAST (Fatigue Avoidance and Safety Tool) to identify fatigue drivers and determine the effects of scheduling strategy on crew performance to the extent possible with the limited data.
4. The contractor will identify the measurements and data collections that are operationally feasible for an air carrier to use to support a data-driven FRMS.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
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A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.24 Video and multimedia products
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- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 362

Modification Number: 001

Task Title:	Fatigue Risk Management System (FRMS) Support
Planned End Date:	November 30, 2010
Task Requester Name:	Dr. Jessica Nowinski

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to increase the budget for specialty subcontractor.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 400.000.2
 Modify existing Task Number _____

Task Title: CIO, EAO & CPIC Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.2, C.1.3, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goals of this task is to provide technical support to the Ames Chief Information Officer (CIO) and Code I in the form of analysis, planning, approach options, system specifications, recommendations, operational issues, systems administration, and service administration in support of the various CIO initiatives and IT activities at Ames or throughout the Agency.

The task will support the setup and operations of Enterprise Architecture Office. This task will support the CPIC process and also assist the Center Office of the CIO (OCIO) in carrying out other IT planning activities, as requested. The task will provide IT coordination support for a number of OCIO initiatives. Provide support on defining and documenting IT Governance and Policy for Code I and OCIO. This includes working with OCIO and Governance and Policy Office in defining IT policies to be implemented to meet Agency and Federal Government directives.

Enterprise Architecture Office Support

The task will also support the implementation of NASA Enterprise Architecture within Code I. This will include documentation support, EA guidance and analysis, change management, and training insofar as it is required by the EA project team. The task will support the directorate in

Enterprise Architecture Project Review to align with the Agency's "to be" enterprise architecture.

Capital Planning and Investment Control

The task requires staff with strong IT management background that includes applicable experience working within a federal agency. The staff must have excellent oral and written communication skills, be resourceful, be capable of working with minimal guidance, and be able to balance multiple activities with short deadlines. Information included in reports and responses to data calls shall maintain a high accuracy level, based on the available data. All reports requested by HQ shall be submitted for review by the Center OCIO as they are being prepared, beginning at least two weeks prior to the scheduled due date. Duties include interfacing with all levels of Center management, including program and project leads within research organizations, which is necessary to collect the planning data and ensure reporting accuracy. Other responsibilities include providing general support for OCIO activities. Day-to-day activities include collecting and organizing technical and financial information, working with complex Excel spreadsheets, mining financial databases, drafting reports, and meeting with various Center points-of-contact. The task also requires an individual familiar with the Agency CPIC process, and capable of interpreting Agency-wide guidance and assisting the Center OCIO in local implementation of the CPIC process at Ames. At least one trip to Washington D.C. or other destinations, typically at other NASA centers, may be required during the task period.

Section 508 and Software Capitalization

The task will be required to support the Center's Section 508 compliance efforts. The task requires staff with strong IT background and keen analytical skills. The task will be responsible for day-to-day operation of the Center's Section 508 function and will interface with Division management, SERV I, Acquisition Division and customers as necessary to ensure compliance. Key responsibilities include on-going analysis of Federal compliance requirements, interpretation of Agency policy, and development of Center-specific guidance, formulation and documentation of lower-level processes supporting compliance, auditing, and compliance reporting. The task will be responsible for facilitating the Center's response to the biennial Department of Justice Survey on Section 508. Other activities include collecting and organizing compliance information, working with vendors, and on-going consultation with customers. At least one trip to Washington D.C. or other destinations may be required during the task period.

The task will also support the Center's Software Capitalization efforts. The task will consult with the Financial Management Division, when requested, on questions of software capitalization requirements and applicability; and will review Center software development plans and announcements, bringing candidates for software capitalization to the attention of the Financial Management Division.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 400

Modification Number: 001

Task Title:	CIO, EAO & CPIC Support
Planned End Date:	January 31, 2010
Task Requester Name:	James Williams

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The task is being modified to move the requirements from Task 402, Code I BMO Set-up and Operations, to this task. The following requirements are being added to the TOD:

Business Management Office Setup:

The goal of this task is to provide Business Management Office (BMO) support and expertise defining, developing and implementing a new IT Directorate Code I BMO. The Business Management Office is responsible for developing and maintaining business development and management methodology for effective program and project execution. The task will provide

support for establishment of Code I Business Management Office, devoted to an end to end approach of business case analysis and proposal writing, establishing costing models for business case analysis, break-even analysis and comparative analysis for business management. The task will be responsible for developing business management related policies, procedures, templates, and tools. The task will also provide operational support to the BMO as per the established operations procedures.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 400

Modification Number: 002

Task Title:	CIO, EAO & CPIC Support
Planned End Date:	January 31, 2010
Task Requester Name:	James Williams

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task until July 31, 2010. The task is also being modified to support the CIO's office in developing the IT Strategy for the Center which will align with the Agency and Federal IT strategic plans. Task will provide the resources required to develop, support, and facilitate workshops the will result in the delivery of the Ames Strategic Plan.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 400

Modification Number: 003

Task Title:	CIO, EAO & CPIC Support
Planned End Date:	July 31, 2010
Task Requester Name:	James Williams

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The task is being modified to support the CIO's office in developing the web strategy and overseeing the web implementation and web operations for the Center. The task will provide tactical and strategic recommendations based on empirical and industry research on the latest web technologies. The task is also being modified to provide additional support for the Ames IT Strategy project and support for the IT Summit conference.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 401.000.2
 Modify existing Task Number

Task Title: Code I PMO Set up and Operations

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.2, C.1.3, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goal of this task is to provide Project Management Office (PMO) support and expertise defining, developing and supporting a new IT Directorate Code I PMO.

The Project Management Office is responsible for developing and maintaining project management methodology for effective program and project execution. They are responsible for developing project management related policies, procedures, templates, and tools. The office also manages and tracks project portfolios to ensure they are properly coordinated and are being run effectively. Results are to be reported to other segments of the organization, such as the Business Development Office. The Project Management Office is responsible for providing: project management, IT project portfolio management and reporting, project consulting, requirements management, Project Management support for application development and integration. Other functions fundamental to project successes may fall within this office's purview.

The task will incorporate training for project managers to be able to create & update project schedules using the Microsoft Project server. The task will also provide advanced training for Project Managers to enable them to do all of the following: create a new project from an Enterprise template, create a Work Breakdown Structure (WBS) in MS Project, enter milestones and tasks for the project, be able to assign resources to tasks, know how to publish a project, be

able to baseline a project, be able to enter risks & issues, be able to tie risks & issues to the project schedule, be able to manage project deliverables and understand the Project Cache & know how to save projects. The task will provide consultation to the PMO office to determine process and infrastructure requirements to support other NASA centers utilizing our enterprise project platform. Project to support pilot with one other center.

The responsibilities of the Project Management Office include, but are not limited to, the following areas:

- Directorate Level Project Integration
- Business Requirements Definition
- Scoping and Charter Development
- Schedule and Resource Impact Analysis
- Implementation Planning and Execution
- Risk Management and Monitoring
- Project Manager Oversight
- MS Project Server Configuration
- MS Project Schedule standards
- Change Management Support

In addition the Project Management Office also...

- Provides project managers to manage key Code I project. The portfolio of projects managed under this task varies.
- Provides support to the SharePoint project
- Provides mentorship to the PMO Intern

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 402.000.2
 Modify existing Task Number

Task Title: Code I BMO Set up and Operations

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1, C.1.2, C.1.3, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

In accordance with current guidelines, procedures, and policies, NASA Ames Research Center (ARC) has submitted a memo to propose a new Information Directorate, Code I, to be led by the Center Chief Information Officer. NASA's NPD 2800.1 policy ensures that information technology (IT) and information resources are acquired and managed pursuant to Agency and Federal Government policies, procedures, and guidelines. NASA Ames seeks to assure the implementation of NPD 2800.1 and conformity with the Headquarters Chief Information Officer's vision and requirements for IT Governance

The goal of this task is to provide Business Management Office (BMO) support and expertise defining, developing and implementing a new IT Directorate Code I BMO. The Business Management Office is responsible for developing and maintaining business development and management methodology for effective program and project execution. The task will provide support for establishment of Code I Business Management Office, devoted to an end to end approach of business case analysis and proposal writing, establishing costing models for business case analysis, break-even analysis and comparative analysis for business management. The task will be responsible for developing business management related policies, procedures, templates, and tools. The task will also provide operational support to the BMO as per the established operations procedures.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 402

Modification Number: 001

Task Title:	Code I BMO Set up and Operations
Planned End Date:	November 6, 2009
Task Requester Name:	Teresa Kurtz

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to close the task effective November 6, 2009 as all Business Management Office support has been moved to Task 400.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 403.000.2
 Modify existing Task Number

Task Title: Customer Experience Office (CEO)

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

In support of the Code I Vision:

Be the premier NASA IT organization at providing IT Services, operations and implementations for all stakeholders within ARC, the Agency, other federal entities, industry and academia, providing the best value added and delivering results that endure.

This task will perform the activities to make Code I Customer Experience Office (CEO) operational. The Code I Customer Experience Office (CEO) has two significant roles; one is operational to improve the customer focus of Code I and provide first and second level support for Code I services via the Code I Solution Center, the other is transformational to improve the overall capabilities of Code I.

Operationally the CEO is responsible for understanding the current experience of those who receive and use IT services provided by Code I, understanding the wants and needs of the customers relative to IT services and developing or facilitating the definition of new or modified services to meet those wants and needs. Additionally, the collection of customer feedback on Code I's performance, while maintaining a service management framework for effective and efficient service delivery, is a responsibility of the CEO.

One of key responsibilities of the CEO is to create an understanding of the Information Technology Infrastructure Library (ITIL) and to implement some of the ITIL processes into the Code I and NASA IT organizations. ITIL is a framework of best practices that is used to instill structure and discipline in IT organizations globally. The introduction of ITIL has operational implications and is a key transformational activity.

Transformationally, the CEO is responsible for managing the organizational change across the Code I Directorate as it moves to a new vision of NASA IT, a service based, and customer centric IT services organization that is capable of providing appropriate IT services to ARC, the Agency and outside NASA.

For the transformation of CODE I to NASA IT, the CEO's role will include managing the changes to the current and future IT service providers, civil servants and contractors, to enable IT services to be delivered at a level expected by the customer. The CEO will also manage the changes in the relationship between the new NASA IT and the customer from the customer's point of view. This role is akin to a broker who must manage the relationships between buyers and sellers to ensure a transaction is completed with both parties satisfied with the result.

The CEO will lead the efforts to ensure active sponsorship, frequent and consistent communications, appropriate skill availability, optimized organizational structures and management relationships to carry out the service delivery and the metrics and reward system to ensure that the transformational changes implemented do provide the desired long term results

The Code I CEO also enables and supports service portfolios to ensure they are properly coordinated and are being delivered effectively. Results are to be reported to other segments of the organization, such as the Project Management Office, Enterprise Architecture Office and the Business Management Office. In summary, the Customer Experience Office is responsible for providing: Organizational Change Management, Marketing and Outreach Management and Service Management.

Service Desk Functions:

The task will provide Tier 1 support to service groups such as Network Operations, Business Applications, Central Services, Voice Systems, Remote Networking Services (VPN & WLAN) Serv-I, Windows Services, facilities operations for N233/N233A, Integrated Enterprise Management Program (IEMP - Core Finance, WebTADS, Travel Manager), and future Agency and Center initiatives provided by Code I.

This function encompasses a variety of Tier 1 support tasks, which includes initiating, on behalf of the customer, incident/service requests received via telephone, email, walk-up and the Ames Intranet. In addition to the creation of incident/service requests, the staff will be responsible for escalation, follow-up and resolution (depending on type of request) and closure of all tickets resolved by Code I technical service groups. To ensure consistent levels of service, Operating Level Agreements (OLAs) will be created and agreed upon between the task and service groups. In addition to the OLAs, Standard Operating Procedures (SOPs) will be documented to ensure

that appropriate information is gathered from the initial customer contact and that all pertinent procedures are followed.

This support will be known as the NASA IT Customer Care Center (NIC³). The NASA IT Customer Care Center (NIC³) will serve the Center as the Single Point of Contact (entry) into Code I and its services. As the face of directorate, the NASA IT Customer Care Center (NIC³) shares an important role in the mission of providing quality customer care for the Center. The NASA IT Customer Care Center (NIC³) measures its success by the customers' satisfaction and by its contributions toward the success of Code I business plans and objectives.

The task will serve, as the Single Point of Contact for incident/service requests for Code I. Evaluating, escalation, follow-up, and closure of all resolved NASA IT Customer Care Center (NIC³) service requests would be supported by this task. Our desired approach is to expand follow-up and closure to all Code I service requests as part of a division wide Service Level Management initiative. Customers may use a variety of methods to initiate service requests, such as telephone, email, interoffice mail, web submission and walk-ups to the NASA IT Customer Care Center (NIC³). All customer contacts will be recorded in the service request system.

CEO management will provide the Task Requestor with reports generated from data within the Service Request System. These reports are to include the following data:

The NASA IT Customer Care Center (NIC³) will be the focal point for all Request, Incident, Problem and Change requests to the Remedy Action Request System. This will aid in the collection of service requests and allow a single source to communicate those requests to the Task Requestor for review and approval. A team of key stakeholders will meet monthly to discuss changes and directions of the Remedy system. This task's Task Manager in conjunction with the Task Requestor will facilitate this meeting. The task will be responsible for the end-user licenses, software maintenance and configuration of the Remedy system.

In addition, the NASA IT Customer Care Center (NIC³) will act as the Ames Registration Authority (RA) with a minimum of 1 Super RA. This is a key function within NASA's Public Key Infrastructure. All staff members will be granted "Positions of Trust" with a high-risk designation. The RA and Super RA functions will be available to the Ames community during normal business hours of 7:00am to 6:00pm. All RA work will be conducted according to the RA procedures and the CPS.

The Remedy system will be expanded to include the use of the IT Service Management suite to integrate the IT Infrastructure Library (ITIL) process. The Remedy ITSM suite of applications will allow Code I to align its service management across the directorate.

Customer Experience Office Objectives

In support of its vision and mission, the Code I CEO has these primary objectives:

1. Execute the ongoing communications plan that provides consistent communication to the Code I customer community and staff.

2. Define and implement a strategy to manage the change of Code I's internal focus to NASA IT's external focus as this transformation impacts IT staff and customers.
3. Define, document, implement and begin using service definitions and related SLAs and OLAs that describe what Code I does and how it fits with the Agency Enterprise Architecture.
4. Implement the processes for service strategy definitions transition operations and continual improvement.
5. Conduct continued ITIL Version 3 Foundation Training for a selected audience of Code I staff.
6. Implement and begin using Request, Change, Incident, and Problem Management across Code I.
7. Define performance metrics and, begin reporting and tracking action.
8. Implement a re-engineering of all external facing web sites into a common look and feel.
9. Provide a Single Point of Contact (SPOC) for Agency and Center-wide Code I provided IT services and applications used by the Agency and Ames staff.

Specific NASA IT Customer Care Center (NIC³) Requirements:

The NASA IT Customer Care Center (NIC³) is staffed between the hours of 7:00 am to 6:00 pm, Monday through Friday (excluding holidays). Its primary responsibilities are to:

- Provide a human interface during the period of performance. Staffing will be a minimum of 2 people per shift during peak hours.
- Record all service requests in the service request system, Remedy.
- Either resolve the incident/service request or escalate it to the appropriate support function for resolution
- Actively monitor/track all open service requests and report on their status.
- On service requests initiated through the NASA IT Customer Care Center (NIC³), a customer satisfaction survey will be sent out and the results tracked and reported to the Task Requestor
- Classification of incident/service requests based on Category, Type and Item
- Methods of contact – Phone, Email, Web and walk-up
- Report on breakdown of tickets based on hour within the business day
- Compile and report on the results from the survey driven by the Remedy Action Request System
- Track tickets resolved by the NASA IT Customer Care Center (NIC³)
- Report on ticket aging by support group/functional area

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provides information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 403

Modification Number: 001

Task Title:	Customer Experience Office (CEO)
Planned End Date:	January 31, 2010
Task Requester Name:	James F. Williams

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This task is being modified to include additional SharePoint design and re-engineering, as well as increased Communications activities for additional projects being added to the Customer Experience Office. In addition, contract labor for the Service Operations Manager and additional Help Desk staff are being moved to a subcontractor/vendor agreement. Corrections in pricing for the Remedy Database Administrator are also included. Performance Deliverables, PD#10 – PD#13 are also being added.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 403

Modification Number: 002

Task Title:	Customer Experience Office (CEO)
Planned End Date:	7/31/2010
Task Requester Name:	James F. Williams

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the task through July 31, 2010. Support for SharePoint design and re-engineering efforts is being removed along with Performance Deliverable #PD13. Performance Deliverables PD#1 and PD#6 are being moved to the new option period. In addition, Performance Deliverables PD#14 – PD#25 and Schedule Deliverables SD#9 – SD# 20 have been added.

The task will use applicable ARC hardware, systems software, utility software, networks, and applications and, where appropriate, recommend new tools and applications. Hours of support will be as follows, Monday through Friday, excluding government holidays: Operations support will be provided on from 07:00 AM to 11:59 PM; Help Desk and Agency eForms support for end users will be provided from 07:00 AM to 06:00 PM; and Application support shall be performed on site from 08:00 AM to 05:00 PM. Additional times may be requested as required for maintenance, installation and upgrades.

The following services will be provided for Applications and Web site Support:

End User Support: During the hours of support, the contractor is required to provide the technical and organizational skill mix required to support the end users of the computer applications. All responses to users must be traceable to a Remedy trouble ticket at the Tier 2 and Tier 3 level. Once a valid trouble ticket has been received, the contractor is required to provide support for the categories that follow.

Applications Support: The contractor will provide the technical skills to professionally operate, maintain, and manage client/server and Web applications supported under this task. The lowest level of support involves infrastructure type services that support all applications and users, and must be provided in an integrated fashion. The contractor is required to backup application software and data, maintain security for databases and accounts, maintain data dictionary, and manage version control of database and applications. As required, the contractor shall provide support for the following activities as part of this task: monthly accrual processing, fiscal year and calendar year-end processing, plan and document application development and approval processes, and software release installation and testing.

Operations Support: The contractor is required to provide the technical skills and support required to professionally operate, maintain, and manage all phases of the applications operations cycle. This includes operation, job execution, monitoring, backups and restores, maintenance, and incremental version upgrades and enhancements. The contractor is required to ensure that the computer applications are operational and available online, or through batch execution. Operations support shall execute regularly scheduled reports that are from the mainframe, Webrio, SATERN, and the FPPS Datamart. The reports shall be downloaded and emailed to the designated end users per instructions. Reports containing PII data will be encrypted and emailed. Phonebook data shall be maintained with updates received from Ames management. Approved centerwide emails shall be processed upon request.

Database Support: The contractor will create, maintain, monitor, control access to all development, test, and production databases, loads, and procedures associated with the applications supported under the task. In addition, database support will be provided for agency initiatives, such as SOC and Sharepoint. The contractor shall maintain 4D, Oracle, SQL Server, MySQL, and Sybase security in accordance with NASA Security Guideline document requirements (NPG 2810).

Access Control: The contractor shall maintain a system and process to support and document the additions, modifications, and deletions of access at the application level. The process should detail access to applications, account approvals, and account actions (i.e., closure, reconciliation, etc.). In addition, the contractor shall provide support to NEA and eGOV account management and security administration that meet the requirements of the Agency's NEA Security Administrator role.

Web Services Support:

1. Respond to web-related help desk requests from ARC users
2. Evaluate web site-related requests and provide estimates to the task requester
 - Update and maintain the Ames Intranet site (Insideames.arc.nasa.gov)
 - Configure and maintain the Ames Web Crawl/Search engine so that it provides Search results for Insideames.
 - Upgrade and make minor modifications to other existing Code I web sites
 - Maintain content on ARC eTouch sites that have been developed under Web Services
 - Ensure that supported websites are operational and available online
 - Perform required and routine maintenance on existing applications and web-related servers
 - Work with Central Services to upgrade software, as needed; test and verify functionality of all upgrades
 - Provide source and object code library management
 - Install systems, database, web, and application (vendor, NASA, and local) patches and upgrades
 - Provide Section 508 compliance testing, upon request

Web Server Architecture Support

The task shall define, provide requirements, and then work collaboratively with the Central Services Systems Administration Task staff to maintain an architecture that supports the requirements of the Web Services activity.

Web Site Hosting and Web Site Registration Support

Working in collaboration with the Central Services Group, IT Security Group, and Firewall group, the task shall provide the technical skills and support required to professionally operate, maintain, and manage all phases of the website hosting and registration operations cycle. This includes the following activities:

- Web Site Hosting -
 - Administer the process for web site hosting on Code I web servers
 - Administer the web hosting request application on web.arc.nasa.gov
 - Support account creation, site directory setup and management on Code I web servers
 - Coordinate the configuration of web servers with Central Services

- Coordinate requests for DNS entry, security scans, etc. to get a host on the network
- Act as the point of contact for backups and restores
- Monitor web servers
- Provide web log statistical reporting
- Web Site Registration -
 - Manage the process for ARC web site registration
 - Coordinate and monitor website registration
 - Creation and management accounts for ARC registrants, management, and policy reviewers in the Agency Website registration system - STRAW/AWRS.
 - Perform Periodic reconciliation of website information between the firewall, IT security, and STRAW/AWRS.

Application Development: As requested, the task shall do product evaluations, support proposal documentation, develop new applications, enhance existing applications, and integrate applications. Each development project will follow the NPR7120.7 based Code I Project Management Office guidelines and templates for project management and documentation. Upon request, application development project will also include an evaluation of the platform and database on which the application will be built. For SharePoint development and integration, the contractor is required to analyze workflows and services specified by the IT organization and provide solutions to automate these workflows using MOSS 2007 with minimum, if any, coding. This will require looking into the existing web applications, where available, and integrating them into SharePoint or replacing them with custom web parts, as applicable.

Product Evaluation and Proposal: As necessary, the task shall be requested to evaluate new products related to the ARC IT infrastructure environment. If needed, requests shall be made for writing proposals for potential new work or upgrades to existing applications.

Project Implementation Methodology: The basic application development process will be:

1. Code ID assigns a Civil Servant Project Manager who will be the responsible government official for the specific project and will receive, review, and approve all deliverables.
2. Code ID identifies and provides high-level requirements to the contractor.
3. A new charge point is requested for tracking all costs associated with the project.
4. The contractor works with the project manager on the project plan.
5. The contractor analyzes the detailed requirements and develops estimates for cost and schedule, factoring in existing task constraints.
6. Code ID reviews the plan and estimates, and authorizes the contractor to proceed with the work utilizing the Agile methodology where appropriate, to execute the project.

7. The task, following the approved development approach and reporting, completes the work and provides the application, source code, testing and relevant documentation support.

The following projects are planned under this task for FY10:

MetricReport Roll Out
Solomon 7.0 Roll Out
ESR SharePoint Report
ESR SharePoint SR Form and Work Flow
CODE I Charge point Report and Configuration
Share Point workflow and application development
Employee Checkout Migration
We Brio Upgrade
Visitor Request
Keys enhancements

Documentation: The contractor will provide documentation for the applications that are developed and maintained under this task. An Application Configuration Document for all application and database platforms supported by this task will be provided on a yearly basis. Standard Operating Procedures will also be provided for each application on a yearly basis. Security Plans will be updated for all applications developed under this task.

A.2.2 Application Integration (NAMS and agency central authentication integration) support requirements for FY10

The high level goals set for this fiscal year are as follows:

- Complete the NAMS integration of all Code I maintained IT resources (FIPS 199 lows and remaining FIPS 199 moderates)
- Complete NAMS application integration support to center organizations outside of Code I (FIPS 199 lows and remaining FIPS 199 moderates).
- Implement authentication services for Code I maintained applications as specified in EA-STD-0001, Standard for Integrating Applications into the NASA Access Management, Authentication, and Authorization Infrastructure.
- Support implementation of authentication services for ARC applications developed or supported by other ARC organizations as specified in EA-STD-0001, Standard for Integrating Applications into the NASA Access Management, Authentication, and Authorization Infrastructure (aka Application Integration Standard).

Specific requirements are as follows:

- **IT project management** – Coordinate the activities of the IT workforce, participating in meetings, update of center and agency schedules, providing status reports, and other documentation as needed.
- **NAMS IT Resource Integration:** Work with IT resource and data owners to define resource approver and provisioner (account creators) groups and resource attributes required to NAMS workflows for IT resources. Load data files of existing account user data into NAMS test, staging and production environments.
- **NAMS IT Resource Maintenance:** Provide maintenance support for existing workflows in NAMS production. This support covers minor changes to the workflow like adding/deleting an approver, adding/deleting a provisioner, or adding/deleting an item from a non-role based field.
- **Central Authentication Resource Integration:** Work with IT resource and data owners to define the appropriate central authentication services that comply with EA-STD-0001, the Agency Application Integration Standard. Coordinate with the application owners or technical POCs to implement e-Authentication, e.g., review and validate application control specifications and submit remedy tickets to the NASA Enterprise Applications Competency Center (NEACC) for integration. Note application/system owners are responsible to modify their applications and install policy agents on their web/application servers to communicate with the e-Authentication servers.
- **Testing:** Develop test plans for to test NAMS application workflow. Resolve any issues or software bugs found during testing. Support testing of agency releases testing before go-live. Document and communicate test results to ARC project management and to the agency as required. Collect and archive test results.
- **Help Desk Support:** Document the help desk process for handling NAMS and 2-factor authentication help desk tickets. Respond to and resolve tickets submitted by center users after NAMS go-live.
- **End-user Technical Support:** Prepare documentation such as presentations and job aids to instruct end users to use NAMS and new authentication services to supplement Agency provided documentation as necessary. Provide technical support for NAMS IT Resource integration to organizations external to Code I. This includes preparation of presentations, integration manuals, and additional documentation to instruct ARC organizations to integrate applications into NAMS and to implement authentication services compliant with EA-STD-0001.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 404

Modification Number: 001

Task Title:	Center Applications Development, Integration, and Operations Support
Planned End Date:	July 31, 2010
Task Requester Name:	Susan Levine

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

((Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.))

The modification is to extend the period of performance until July 31, 2010, as well as add the following requirement: NCAD Project has been added to the requirements as defined below. This modification also clarifies the requirements; all changes are listed in bold.

The purpose of this task is to provide center application development, integration, and operations support for Ames Research Center (ARC). This support includes the following areas:

- Center Administrative/~~Center Business Applications~~ (includes account provisioning, workflows, reporting tools and Data warehouse, Database administration);

- Center level support for the NASA Enterprise **Applications (NEA)** and eGOV applications and NASA Integrated Services Environment (NISE) modules;
- Code I Financial Management Systems (FMS **Solomon**);

The task will provide support for the integration of **Center** applications and systems into the Agency's Central Architecture for Authentication and Authorization. This includes the NASA Consolidated Active Directory (NCAD) environment, E-authentication (**2 factor single sign on**), and the NASA Account Management System (NAMS).

The task will follow all processes as defined by the Code I Project Management Office, Customer Experience Office, Business Management Office and Enterprise Architecture Office.

A2.1 Overall Task Requirements

The task will use applicable ARC hardware, systems software, utility software, networks, and applications and, where appropriate, recommend new tools and applications. Hours of support will be as follows, Monday through Friday, excluding government holidays: Operations support will be provided on from 07:00 AM to 11:59 PM; Help Desk and Agency eForms support for end users will be provided from 07:00 AM to 06:00 PM; and Application support shall be performed on site from 08:00 AM to 05:00 PM. Additional times may be requested as required for maintenance, installation and upgrades.

The following services will be provided for Applications and Web site Support:

End User Support: During the hours of support, the contractor is required to provide the technical and organizational skill mix required to support the end users of the computer applications. All responses to users must be traceable to a Remedy trouble ticket at the Tier 2 and Tier 3 level. Once a valid trouble ticket has been received, the contractor is required to provide support for the categories that follow.

Applications Support: The contractor will provide the technical skills to professionally operate, maintain, and manage client/server and Web applications supported under this task. The lowest level of support involves infrastructure type services that support all applications and users, and must be provided in an integrated fashion. The contractor is required to backup application software and data, maintain security for databases and accounts, maintain data dictionary, and manage version control of database and applications. As required, the contractor shall provide support for the following activities as part of this task: monthly accrual processing, fiscal year and calendar year-end processing, plan and document application development and approval processes, and software release installation and testing.

Operations Support: The contractor is required to provide the technical skills and support required to professionally operate, maintain, and manage all phases of the applications operations cycle. This includes operation, ~~job execution~~, monitoring, backups and restores, maintenance, and incremental version upgrades and enhancements. The contractor is required to ensure that the computer applications are operational and

available online, or through batch execution. Operations support shall execute regularly scheduled reports that are from the ~~mainframe, Webrio, Webrio2~~, SATERN, and the FPPS Datamart. The reports shall be downloaded and emailed to the designated end users per instructions. Reports containing PII data will be encrypted and emailed. Phonebook data shall be maintained with updates received from Ames management. Approved centerwide emails shall be processed upon request.

Database Support: The contractor will create, maintain, monitor, control access to all development, test, and production databases, loads, and procedures associated with the applications supported under the task. In addition, database support will be provided for agency initiatives, such as SOC and Sharepoint. The contractor shall maintain 4D, Oracle, SQL Server, MySQL, and Sybase security in accordance with NASA Security Guideline document requirements (NPG 2810).

Access Control: The contractor shall maintain a system and process to support and document the additions, modifications, and deletions of access at the application level. The process should detail access to applications, account approvals, and account actions (i.e., closure, reconciliation, etc.). In addition, the contractor shall provide support to NEA and eGOV account management and security administration that meet the requirements of the Agency's NEA Security Administrator role.

Web Services Support:

3. Respond to web-related help desk requests from ARC users
4. Evaluate web site-related requests and provide estimates to the task requester
 - Update and maintain the Ames Intranet site (Insideames.arc.nasa.gov)
 - Configure and maintain the Ames Web Crawl/Search engine so that it provides Search results for Insideames.
 - Upgrade and make minor modifications to other existing Code I web sites
 - Maintain content on ARC eTouch sites that have been developed under Web Services
 - Ensure that supported websites are operational and available online
 - Perform required and routine maintenance on existing applications and web-related servers
 - Work with Central Services to upgrade software, as needed; test and verify functionality of all upgrades
 - Provide source and object code library management
 - Install systems, database, web, and application (vendor, NASA, and local) patches and upgrades
 - Provide Section 508 compliance testing, upon request

Web Server Architecture Support

The task shall define, provide requirements, and then work collaboratively with the Central Services Systems Administration Task staff to maintain an architecture that supports the requirements of the Web Services activity.

Web Site Hosting and Web Site Registration Support

Working in collaboration with the Central Services Group, IT Security Group, and Firewall group, the task shall provide the technical skills and support required to professionally operate, maintain, and manage all phases of the website hosting and registration operations cycle. This includes the following activities:

- Web Site Hosting -
 - Administer the process for web site hosting on Code I web servers
 - Administer the web hosting request application on web.arc.nasa.gov
 - Support account creation, site directory setup and management on Code I web servers
 - Coordinate the configuration of web servers with Central Services
 - Coordinate requests for DNS entry, security scans, etc. to get a host on the network
 - Act as the point of contact for backups and restores
 - Monitor web servers
 - Provide web log statistical reporting

- Web Site **and Center Application tracking and** Registration -
 - Manage the process for ARC web site **and application** registration
 - Coordinate and monitor website **and application** registration
 - Creation and management accounts for ARC registrants, management, and policy reviewers in the ~~Agency Website registration system – STRAW/AWRS System~~ **for Tracking and Registration of applications and web sites- STRAW.**
 - Perform Periodic reconciliation of **application and** website information between the firewall, IT security, and STRAW/~~AWRS~~.

Application Development: As requested, the task shall do product evaluations, support proposal documentation, develop new applications, enhance existing applications, and integrate **applications support**. Each development project will follow the NPR7120.7 based Code I Project Management Office guidelines and templates for project management and documentation. Upon request, application development project will also include an evaluation of the platform and database on which the application will be built. For SharePoint development and integration, the contractor is required to analyze workflows and services specified by the IT organization and provide solutions to automate these workflows using MOSS 2007 ~~with minimum, if any, coding and other workflow tools~~. This will require looking into the existing web applications, where available, and integrating them into SharePoint or replacing them with custom web parts, as applicable.

Product Evaluation and Proposal: As necessary, the task shall be requested to evaluate new products related to the ARC IT infrastructure environment. If needed, requests shall be made for writing proposals for potential new work or upgrades to existing applications.

Project Implementation Methodology: The basic application development process will be:

8. Code ID assigns a Civil Servant Project Manager who will be the responsible government official for the specific project and will receive, review, and approve all deliverables.
9. Code ID identifies and provides high-level requirements to the contractor.
10. A new charge point is requested for tracking all costs associated with the project.
11. The contractor works with the project manager , **and the PMO assigned project coordinator**, on the project plan.
12. The contractor analyzes the detailed requirements and develops estimates for cost and schedule, factoring in existing task constraints.
13. Code ID reviews the plan and estimates, and authorizes the contractor to proceed with the work utilizing the Agile methodology where appropriate, to execute the project.
14. The task, following the approved development approach and reporting, completes the work and provides the application, source code, testing and relevant documentation support.

The following projects are planned under this task for FY10:

~~MetricReport Roll Out~~

Solomon 7.0 Roll Out

ESR SharePoint Report

ESR SharePoint SR Form and Work Flow

CODE I Charge point Report and Configuration

Share Point workflow and application development (**ARCAPPS, Check in etc.**)

Employee Checkout Migration

~~We Brio Upgrade~~

Visitor Request

Keys enhancements

Documentation: The contractor will provide documentation for the applications that are developed and maintained under this task. An Application Configuration Document for all application and database platforms supported by this task will be provided on a yearly basis. Standard Operating Procedures will also be provided for each application on a yearly basis. Security Plans will be updated for all applications developed under this task.

A.2.2 Application Integration (NAMS and agency central authentication integration) support requirements for FY10

The high level goals set for this fiscal year are as follows:

- Complete the NAMS integration of all Code I maintained IT resources (FIPS 199 lows and remaining FIPS 199 moderates)

- Complete NAMS application integration support to center organizations outside of Code I (FIPS 199 lows and remaining FIPS 199 moderates).
- Implement authentication services for Code I maintained applications as specified in EA-STD-0001, Standard for Integrating Applications into the NASA Access Management, Authentication, and Authorization Infrastructure.
- Support implementation of authentication services for ARC applications developed or supported by other ARC organizations as specified in EA-STD-0001, Standard for Integrating Applications into the NASA Access Management, Authentication, and Authorization Infrastructure (aka Application Integration Standard).

Specific requirements are as follows:

- **IT project management** – Coordinate the activities of the IT workforce, participating in meetings, update of center and agency schedules, providing status reports, and other documentation as needed.
- **NAMS IT Resource Integration:** Work with IT resource and data owners to define resource approver and provisioner (account creators) groups and resource attributes required to NAMS workflows for IT resources. Load data files of existing account user data into NAMS test, staging and production environments.
- **NAMS IT Resource Maintenance:** Provide maintenance support for existing workflows in NAMS production. This support covers minor changes to the workflow like adding/deleting an approver, adding/deleting a provisioner, or adding/deleting an item from a non-role based field.
- **Central Authentication Resource Integration:** Work with IT resource and data owners to define the appropriate central authentication services that comply with EA-STD-0001, the Agency Application Integration Standard. Coordinate with the application owners or technical POCs to implement e-Authentication, e.g., review and validate application control specifications and submit remedy tickets to the NASA Enterprise Applications Competency Center (NEACC) for integration. Note application/system owners are responsible to modify their applications and install policy agents on their web/application servers to communicate with the e-Authentication servers.
- **Testing:** Develop test plans for to test NAMS application workflow. Resolve any issues or software bugs found during testing. Support testing of agency releases testing before go-live. Document and communicate test results to ARC project management and to the agency as required. Collect and archive test results.
- **Help Desk Support:** Document the help desk process for handling NAMS and 2-factor authentication help desk tickets. Respond to and resolve tickets submitted by center users after NAMS go-live.
- **End-user Technical Support:** Prepare documentation such as presentations and job aids to instruct end users to use NAMS and new authentication services to supplement

Agency provided documentation as necessary. Provide technical support for NAMS IT Resource integration to organizations external to Code I. This includes preparation of presentations, integration manuals, and additional documentation to instruct ARC organizations to integrate applications into NAMS and to implement authentication services complaint with EA-STD-0001.

A.2.3 NCAD project support

This support is only needed until the end of February, when this project ends. The ongoing support for AD will then be covered under Task 405.

Active Directory (AD): This task shall support the migration activities by assisting in the transition of existing ARC Domain objects to the NDC domain. This task shall manage and administer the ARC AD infrastructure, including all of Ames' domain controllers, KMS servers, and the ARC Active Directory replicas located at JSC and MSFC. The task shall also ensure the high availability and redundancy of the AD infrastructure, and manage all security-related functions. The task shall provide training on the Net IQ toolset for ARC admin staff.

In addition, this task shall be responsible for managing and deploying system changes and policies to resources connected to the ARC Domain; shall administer all AD users, services, resources, schema changes, FSMO roles, trusts, group policies, and replication; and shall help integrate new systems into the NCAD Domain. This task shall provide customer and technical support to the local administrators of the AD's Center Organizational Units (OUs), assigning policies, deploying software, and applying critical updates to their OUs.

This task shall support all migration activities under the NASA Consolidation of Active Directory (NCAD) project, including providing input to the data calls, assessing operational impacts, and supporting all migration preparation tasks within the ARC domain, which include, but are not limited to, renaming all security groups to follow NCAD design standards, renaming users to their Agency User ID (AUID), identifying and removing stale objects, collapsing the existing OUs, and applying group policies and security filtering on groups.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 405.000.2
 Modify existing Task Number

Task Title: Code I Data Center Management
Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010
ACITS2 SOW Reference C.1.1, C.1.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task provides Code I IT-related Facility management and Data Center System's Administration that is necessary for the operation of the Ames Code I IT facilities. The Code I IT facilities include buildings N233, N233A, N240, N229, N263, N254, Nebula, and portions of M16. The task shall, on behalf of the Code I management, also run a range of Codes IO and ID systems and services, including the critical services of Active Directory, VMware, Storage Area Network (SAN), and others listed below. This task shall operate, maintain, and administer the hardware, operating systems (OS), and many applications for these services under Code IO, and shall also maintain and administer the operating systems and hardware of several other systems under other codes.

Specifically, the task will provide the following services:

Systems Administration

Active Directory (AD): This task shall operate, maintain, and administer all systems used to provide Windows Active Directory (AD) authentication, authorization, accounting and system services within the NCAD Domain. This critical service provides access to Center and Agency services such as NASA Operational Messaging and Directory (NOMAD), Sharepoint, and the Ames Public File Share, as well as access to other system resources. This task shall manage and administer the NCAD AD infrastructure, including all of Ames' domain controllers, KMS servers, and the ARC Active Directory replicas located at JSC and MSFC. The task shall also

ensure the high availability and redundancy of the AD infrastructure, and manage all security-related functions.

In addition, this task shall be responsible for managing and deploying system changes and policies to resources connected to the NCAD Domain; shall administer all AD users, services, resources, schema changes, FSMO roles, trusts, group policies, and replication; and shall help integrate new systems into the NCAD Domain. This task shall provide customer and technical support to the local administrators of the AD's Center Organizational Units (OUs), assigning policies, deploying software, and applying critical updates to their OUs.

This task shall support all operational activities under the NASA Consolidation of Active Directory (NCAD) project, including providing input to the data calls, assessing operational impacts, and supporting all migration preparation tasks within the ARC domain, which include, but are not limited to, renaming all security groups to follow NCAD design standards, renaming users to their Agency User ID (AUID), identifying and removing stale objects, collapsing the existing OUs, and applying group policies and security filtering on groups.

VMware: This task shall operate, maintain and administer the systems used to provide the critical VMware environment include ongoing support of the VMware 64 & 32 bit clusters. This includes the VMware Virtual Center server and the VMware ESXi host servers that support this clustered high availability environment. The current VMware environment is critical because it provides a virtualized infrastructure to various groups that support important Center and Agency groups and projects, such as the ARC Office of the CIO, Application Services, Public Key Infrastructure (PKI), Card-Key Management System (CMS), ODIN, and Constellation. The VMware environment enables these groups and projects to test and develop critical services, such as Sharepoint, RSA SecurID, the Federal Desktop Core Configuration (FDCC) and NASA.net. This task also provides these groups with several isolated Active Directory domain controllers to use in their testing. The VMware environment enables these developers and testers to quickly bring up new servers without having to purchase actual physical servers, and it gives them the flexibility to manage their own virtual machines, save changes, and revert back to those changes. This VMware environment helps reduce IT costs for the Center and Agency by requiring fewer physical servers, reducing hardware failure rates, and cutting power consumption.

To ensure the high availability and redundancy provided by this VMware environment, the task shall efficiently manage the server processors, memory, storage and networking resources within the hosts and their many virtual machines. This task shall optimize the virtual machines within resource pools, move the virtual machines away from failing or underperforming servers, and provide hardware maintenance with minimal downtime to customers' individual virtual machines and with minimal disruption of business operations. In addition to the current monitoring and backup of the hosting infrastructure, the task shall investigate additional features such as dedicated virtual machine monitoring and backup services to each of the individual virtual machines. This will include VMware support to migrate physical servers into the existing virtualized production VMware environment.

Storage Area Network (SAN): This task shall operate, maintain and administer the Storage

Area Network (SAN), currently deployed in the Building N233 data center. This SAN — currently comprised of Brocade switches, HP EVA storage arrays, and Nexsan SATABeast and DataBeast storage arrays — is a high-performance network, which has the primary purpose of enabling storage devices to communicate with computer systems and with each other. The task manages the storage virtualization and provides storage for critical infrastructure groups across the Center, such as the Office of the CIO, the Public Key Infrastructure (PKI), and the Application Services Group (ASG). This storage virtualization reduces IT costs, power consumption, and disk failure rates to the services attached to the SAN. The critical services supported by the SAN include Sharepoint, VMware, Backup Services, Business systems applications, the Ames public network Windows 2003 server cluster that provides Windows File Share Services to the entire Ames community and several other services across a variety of groups.

This task shall operate and maintain the hardware and software that comprise the SAN, which integrates multiple disk arrays across the network within two fabrics, providing redundancy that is uniformly managed by the task. The task handles all storage communications between storage devices and servers; operates and manages the redundancy across both SAN fabrics; provisions servers for the SAN; manages capacity including quick and seamless storage expansions to existing servers; replicates storage; and enables more effective disaster recovery processes. This task shall also operate and maintain new servers that are migrated to the SAN from Code ID or other groups. The task shall continue to operate the SAN extension in building 254, and recommend improvements to the efficiency of future SAN operations.

Web Servers: This task shall operate and maintain all systems used to provide web hosting services to the Application Services Group. The task shall support all daily system administrative activities for the web hosting servers, as well as the hardware and operating systems of the database servers that serve these web servers. This task creates and manages the virtual web servers, manages the php application, processes and manages all SSL certificates including renewals on the Apache web servers for the php web hosting solutions. Creates and manages the coldfusion datasources to interface with the database servers, processes and manages all SSL certificates including renewals on the SunOne Web servers for the ColdFusion hosting solutions. The task shall operate and maintain the MySQL and Sybase database servers serving data to several sites hosted within the web hosting infrastructure. This task supports over 200 virtual sites.

Backup Services: This task shall operate and maintain the data backup infrastructure, back up systems and data, and restore systems and data as necessary. This services includes managing all daily system administrative activities, supporting backups across the public, private and open networks on the ARC LAN, managing and maintaining the master and media servers along with the Tape Library, creating backup policies, scheduling and performing backup verifications by restoring files upon initial policy creation, performing restores as requested, tape management and cleaning. This task currently supports nearly 100 servers running a variety of operating systems, including Windows 2003 and XP, Mac OS X, Linux, Solaris and supports various groups across the Center including, the OCIO, PKI/CMS, Network Operations Center (NOC), Constellation groups and several others. In any given week, this task backs up over 20 million files and over 10TB of data.

IP Monitor: This task shall operate and maintain the IpMonitor servers and application used to provide availability monitoring and alerts for Code I servers and other groups, as requested by the Task Requester. This task has built network and system redundancy around this service in an effort to monitor across the different networks and monitor from the different data centers in building 233 and 254. This task shall operate and maintain all daily system administrative activities, application support, and monitor configuration for new and existing services. The task has created and manages roughly 760 monitors running on each IpMonitor server. The task manages various levels of monitoring ranging from basic ping monitoring to specialty service monitoring, such Active Directory, SQL, Exchange, DNS, LDAP. Other monitoring managed by this task includes networking monitoring, including bandwidth usage and network speed, resource and file systems monitoring, and power monitoring including the data center's UPS. This service provides 24x7 monitoring and alerting for all servers and devices being monitored and provides basic to custom level reports for owners of the monitored systems.

Center SMTP Mail Relays: This task shall operate and maintain the Center SMTP mail relays, which support all email traffic within the Center. This traffic includes all of the registered SMTP servers requiring incoming mail. These relays perform the primary virus and spam scanning on email entering the Center's servers. This includes support and administration of the agent and master servers and the Proofpoint application residing on those servers. This also includes support of the Regulatory Compliance module that can block Social Security numbers from being sent in the clear.

SecurID Services: This task shall operate and maintain all systems used to provide RSA SecurID Services, including WebExpress. These systems include the primary server, both replica servers, and the WebExpress server. The task shall support all daily system administrative activities, server-side agents, and the applications on these systems, excluding basic account management. This task shall continue supporting existing and new cross realms established within the Center, such as the NAS, and across the Agency, such as HQ, LaRC, Stennis, JSC, and Dryden.

NetBotz: This task shall operate and maintain the system used to collect environmental monitoring data. This system includes the NetBotz Central appliance server. The task shall support all daily system administrative activities, providing application clients to customers accessing this data, and providing server-side support for the sensor/cameras that deliver data to the NetBotz Central Server.

Project/WSS: This task shall operate and maintain the system used to provide the current Project 2007 server (prj.arc.nasa.gov) with Project Web Access. This includes managing and maintaining the operating system, hardware, the Project 2007 Server, the SQL 2005 database and the Windows Sharepoint Services. This also includes creating, managing and hosting project sites, managing resources and groups, and creating and supporting workflows such as the change management workflow currently used to process change requests to the Task Requester. This task supports over 50 sites and roughly 100 users.

File Services: This task shall operate and maintain all systems used to provide Windows File Share Services via the Windows Domain. These systems include the primary and secondary cluster nodes. The task shall support all daily system administrative activities and cluster applications. This includes support and administration for the existing DECRU devices.

Services to be decommissioned:

X.500 Services: The task shall also support Code ID with decommissioning this service and shall continue to operate and administer the service until relying applications have been redirected to the new Enterprise directory.

Facilities

IT Facility Management: Provide technical management of the facility and physical plant (HVAC & Electrical) systems supporting IT operations for Code I IT facilities. Technical management and documentation of Code I IT facilities space usage, computer room layouts, and the configuration of physical plant (HVAC & Electrical) systems. Development of the risk analysis, disaster recovery plans, safety procedures for the Code I IT facilities and its operating staff. Technical management and operational support of access control systems to manage physical access to the IT facilities and IT operational areas within the Code I facilities.

Logistic Support: Provide logistic support within the Code I IT facilities to accomplish IT equipment, computer room, and related office moves.

Configuration Management (CM): Provide CM support to Code I management, develop prototype CM protocols/processes, and collect and organize CM baseline documentation. Within Code I, the various elements or subsystems of the production IT infrastructure are required to participate in the Directorate's configuration management activities. These activities include assisting the development and maintenance of standard operating procedures (SOPs), configuration diagrams (down to the subsystem level), tracking usage and availability metrics, establishing and monitoring service level agreements, and developing and implementing plans (e.g., transition, configuration management, strategies, etc.). These materials will be reviewed monthly by the Configuration Control Board (CCB) and will be current for all Operational Readiness Reviews (ORRs). Support the Directorate's CM activities and assist the subsystems with their CM requirements and deliverables.

Standardization: Provide and procure appropriate industry and regulatory standards for workmanship, labeling, earthquake proofing, and other computer services standards needed to provide a better operational environment that supports; ease of troubleshooting and repair, ease of systems upgrading, business continuity and recovery, and provides sound CM practices.

Computer Aided Design (CAD): Provide detailed drafting skills to create, and/or modify building architectural, mechanical, electrical, and equipment system drawings as required to support Directorate IT physical plant and logistic requirements.

Facilities Management: Plan, coordinate, and implement building modifications, upgrades, repairs, and preventive maintenance to the Code I facilities. There are currently on-going and planned Code I projects for Building N233, N233-A, N263, N254, N229, N240, Nebula, and

portions of M16. Essential duties include: receive and respond to daily trouble calls through Remedy/Help Desk and IT-related facility project requests; prepare and maintain a project schedule to track and budget on the on-going and planned projects; respond to key core changes and add/change/move phone extension. **The receipt of non-emergency calls or requests will be responded to within a 48-hour time frame either by phone or electronic mail to the customer. Emergency calls will be responded to within a 15-minute time frame during normal business hours and a best effort response outside of normal hours.** Plan and coordinate upgrades and maintenance of primary systems necessary to support IT operations in all Code I IT facilities. Systems include: electrical, structural, roofing and mechanical. (Overtime and weekends may be required to meet these needs). Manage and operate the electronic access control system to limit physical access to IT systems and operational areas of N233, N233A and N254. Identify and initiate corrective actions regarding Safety Hazards (includes seismic bracing, fire, and slip/fall hazards) and environmental hazards.

SOC Support

SOC Windows System Administration: Provide Windows system administration in support of the CODE I, SOC management, provide system administration for the Incident Management System (IMS) and the SOC analysts' workstations. This task shall support operation, maintenance and administration of the hardware, operating systems (OS), MS SQL, Windows IIS for these systems. This consists of 2 to 4 servers and 18 desktops.

Analyst Support: This task shall maintain and administer the Windows Vista machines of the IMS Analysts using the Incident Management System. These workstations are dedicated to the IMS function and should remain standardized and relatively static. During the hours of support, the contractor is required to provide the technical and organizational skill mix required to support the users of the computer applications. All responses to users must be traceable to an ITSC Trouble Ticket at the Tier 2 and Tier 3 level.

SOC 7x24 On-call Windows System Administration Support

- Provide during non-business hours, which are 07:00-18:00 PST Monday-Friday excluding government holidays
- Provide 7x24 on-call support for all failures of the Windows systems currently supported under the task.
- Provide 30 minute response to the person first reporting the problem for all system failures
- If on-site Windows systems support is required following remote troubleshooting, arrive within 2 hours.

SharePoint Administration

In preparation for the Phase 1 rollout of Sharepoint for the agency, the task will provide Systems Administration services for the support of SharePoint for the Agency. This task includes support and direction for the implementation of SharePoint application for the Agency. Working with the team in reviewing the existing architecture, providing recommendations including any new

software that is needed and making sure that the Production and Development environment are correctly set up. The contractor will work with the core team in ensuring that appropriate level of application/system security are in place with minimum impact on the functionality.

The contractor will work with the customers in identifying and developing the taxonomy for the information architecture and security architecture of the system, and will prototype and build site templates which will then be provided to the customers.

The contractor must be able to work in a fast paced, aggressive and dynamic environment and have experience in building and rolling-out Sharepoint in a corporate environment where end users use Microsoft Windows XP, Windows Vista, Linux, and Mac OS X.

Nebula

The goal of this task is to provide system administration and data center operations support to Code IQ's Nebula (a.k.a. NASA.net and NASA Cloud) project. The Nebula project aims to create a new platform for delivery computing infrastructure and services. The project team is comprised of many resources from a variety of sources filling a variety of roles. Many of these roles, including the project management and technical leadership fall outside of this task. This task will provide support to the Nebula project manager and technical lead.

The task must provide expertise in these areas on an as-needed basis. As this task is in support of the project manager and technical lead on the Nebula project and the Nebula project is still in its infancy, key objectives of this task are flexibility and responsiveness.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 405

Modification Number: 001

Task Title:	Code I Data Center Management
Planned End Date:	January 31, 2010
Task Requester Name:	Terry Kurtz

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The task is being modified to support the Code IT facility Electrical Renovation Project to include participation in project design reviews and to provide technical coordination support for the project during the design phase.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 405

Modification Number: 001

Task Title:	Code I Data Center Management
Planned End Date:	July 31, 2010
Task Requester Name:	Terry Kurtz

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables	X	<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance through July 31, 2010 and to move the support of Sharepoint and SOC to Task 409. This modification also removes the support functions for **Project/WSS** (prj.arc.nasa.gov) because it was decommissioned on 1/12/2010 and the server will be repurposed.

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 405

Modification Number: 003

Task Title:	Code I Data Center Management
Planned End Date:	July 31, 2010
Task Requester Name:	Terry Kurtz

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables	X	<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

The task is being modified to move the operational support of Nebula to Task 409 retroactive to October 1, 2009 and to increase the budget for the Data Center cleaning. Schedule Deliverable #4 will be extended.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 406.000.2
 Modify existing Task Number

Task Title: ServI and Communication Demand Services Operations Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.3

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Note: The task will be funded at the sub-task level

This task is to support procurement activities in the following areas:

This task will provide SERV-I administrative support and management. SERV-I, a Demand Service Pool, is the Center's interface to procure IT products available in the NASA SEWP Contract and ODIN Contract (Prime and DO3) performed within the Applied Information Technology Division (Code I/BMO). Requirements include administrative, financial, customer service, and receiving/delivery support.

The task will provide a Point of Contact for ODIN seats; computers, cell phones, pagers, Webex, Servers, etc.

This task shall provide the necessary user required equipment and services for Code I's multiple centralized communications support to its Ames customers (Phone, Data, Video and ISDN). This support generally includes:

- A) Customer consultation services
- B) Acquire equipment and services

- C) Ready equipment and environment as necessary for customer usage
- D) Deliver service to customer
- E) Documentation and data entry support

This task will provide this support through the following subtasks:

- A) Data Communications Equipment Services (Add, Moves, Changes and Repairs)
- B) Landline Phone Equipment Services Support (ARC- Adds, Moves, Changes)
- C) Video Equipment Services

Hours of operation for this task will be 7:30AM to 4:30PM Monday through Friday, excluding holidays.

A.2.1 ServI Requirements:

Provide Center interface for IT products available for purchase via the NASA SEWP Contract and ODIN Contract, Prime and DO3. This includes: Reviewing incoming IT Product requests for correct documentation and funding requirements, requesting quotes from vendors, as necessary, creating PR/PO for SEWP orders, processing action via Code I/BMO's and SAP, Ames Financial Systems, Solomon, and submitting Delivery Orders to SEWP and ODIN once all NASA Procurement processes are completed. Reconcile entries/data between Solomon and SAP each month. Also responsible for receiving/delivery of SEWP Orders to end user, and includes getting documentation of receipts and preparation of invoices for payment. Respond to customers (SR's Requestors, Financial and POC, and Code I/BMO Management) within 16 business hours regarding but not limited to the status of their Service Request (SR), Delivery Order, and Invoices.

Provide management and over-sight of all SERV-I activities as defined in previous paragraphs. Management duties will include responsibility for the day-to-day SERV-I services direct interface to SERV-I Manager, evaluation of current business model and proposing new business models, defining and implementing policies and procedures, and management of all SERV-I contract staff.

A.2.2 Code I/Business Management Office Communication Demand Services: Adds, Moves and Change Requirements:

Code I/BMO customers submit SRs to the Code I/BMO Communications Demand Services group (CDS) requesting services, adds, moves and changes (AMC) and/or equipment, The CDS logs the SR and forwards the SR (in PDF format) to the applicable Code I/BMO civil servant POC (Data, Voice, or Video) or their delegate. The Code I/BMO POC either approve or disapprove the SR. If the Code I/BMO POC disapprove the SR, they will notify the CDS and the CDS will return the SR to the customer. If the POC approves the SR, the POC forwards SR with instructions to the Information Technology Support Center (ITSC) Help Desk where the data is entered into Remedy and a ticket is created with the attached SR and sent to the applicable contractor Technical POC (Data, Voice, or Video). A Remedy Ticket must also be created for Annual (Open) Service Requests for any services provided.

In most cases the task should, within 2 business days of receipt of the equipment prepare the equipment and acquire the requisite Ames accounts for the customer's use of the equipment, options and/or services. Staff should respond to requests for changes in service level(s) or types of options for equipment within 1 business day of receipt of SR. Excluding external dependencies, Staff will deliver equipment to the customer within 1 day of completion of equipment preparation.

Within 1 day of receipt of the SR, the technical staff assigned to perform the work will consult and assist the customer to select the appropriate equipment, options and/or services. The task will acquire the equipment, options and/or services requested.

Inventory of equipment purchased and used shall be tracked and monitored. A Monthly Report shall be submitted to the Task Requester no later than the 7th working day following the end of the month. The report shall contain the following information: date of inventory, description of items, quantity of items in stock, number of items used during the month and the SR number associated with the items used. A copy of all ODCs submitted to purchase inventory items during the month, shall be attached to the Monthly Report.

Upon completion of the service(s), the applicable Technical group will provide a completed Work Order Worksheet, Materials/Equipment Request (ODC), and a copy of the Remedy Ticket to the CDS.

Within 24 business hours, the contractor CDS staff will enter the cost based on the completed Work Order Worksheet and Materials/Equipment Request (ODC) into Solomon, Code I/BMO's financial system; the exceptions to this requirement are:

1. During the end of month reconciliation period when no entries can be made until the Task Requester has approved the reconciliation
2. When the reimbursement is not obligated in SAP

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

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- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 406

Modification Number: 001

Task Title:	ServI and Communication Demand Services Operations Support
Planned End Date:	July 31, 2010
Task Requester Name:	Veneranda Jubilo

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification extends the task through July 31, 2010.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 407.000.2
 Modify existing Task Number

Task Title: Telecommunications and Data Network Operations

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.2

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

This task is a consolidation of all operational tasks related to telecommunications or data networks, including Video, Voice, Cable Plant, and Ames Research Center Local Area Network (ARCLAN). The task will provide Tier II/III support, routine maintenance, Adds/Moves/Changes, change/configuration control, monitoring, alarming, incident response, and documentation for each element. Additionally, this task will provide appropriate personnel to maintain internal CAD drawings for the purposes of permitting and documentation, and a stockroom and logistics function to maintain an inventory of frequently used components, and track maintenance contracts.

A.2.1 Institutional Video Services

This task will provide daily operational support; systems design expertise, and maintenance services to the NASA-Ames Research Center. Scope of this includes analog and digital video/audio, including routing, distribution, presentation, and facilities. This task also includes support of collaborative and multimedia environments, as well as intercom operations.

Expertise required includes consultation, engineering, coordination, operation, maintenance, documentation, and service management within the areas cited above, directly supporting the mission and goals of NASA-Ames Research Center.

The overall approach to this task must provide for the daily operation, maintenance, documentation, scheduling, and status reporting of institutional video/audio services and projects. Prompt, clear and consistent communication is required to insure that all components of these systems are functioning optimally, and within the scope of NASA Ames Research Centers expectations.

The approach to the Task must emphasize the importance of having personnel available in the EVG/VCC facility during core business hours. It is also imperative that scheduled events, projects, and activities are completed on or before the agreed upon date and within the agreed upon costs.

Further, the approach to the Task must recognize the importance of configuration control and management, and continuous review and improvement to processes and procedures as key to managing performance risk and averting or correcting performance deficiencies efficiently. Workspaces, office spaces, and work activities must be consistent with professional practices and Ames Health & Safety guidelines.

As government owned and provisioned infrastructures and services, it is stressed that all proposed changes under the Task to facilities, systems, services, and infrastructures must be presented, in advance of execution, for formal configuration management review and approval of the Task Requestor prior to actual execution with the possible exception of emergency, short term, changes deemed essential to meet immediate operational imperatives that could not otherwise be reviewed in advance with the Government. Exceptions will require a formal incident review and configuration management review for appropriateness and change concurrence of the Task Requestor.

A.2.1.1 General Performance Guidelines and Standards

All work shall be performed to specification and in a neat and workmanlike manner, complying with all applicable codes, regulations, standards, independent lab specifications and the recommended manufacturer installation practices as identified and clarified with specific policies, procedures, and practices defined in Video/Audio Networks and Systems Engineering (VANSEG) operational guidelines and documents based on accepted and appropriate industry and Government regulations, standards, and practices (See references).

Note: Where there is any conflict between specifications, standards, regulations or codes between VANSEG requirements and other general industry standards or Government regulations, an examination of the conflict will be performed by the Task Requestor, in conjunction with the Task Manager, and a final determination will be provided by the Task Requester with concurrence of the COTR as required.

References:

- Codes
- NESC
- NEC
- UBC

Regulations

- NTIA
- FCC
- PUC
- OSHA

Standards

- EIA/TIA
- IEEE
- NEMA
- ANSI
- NECA

Independent Labs

- UL

References

- BICSI Manual
- AT&T Engineering Handbook
- Bellcore
- Manufactures Installation Practices for installed equipment
- National Electrical Installation Standards

All documents, processes, and documentation pertaining to the Task and supported Task activities and systems are to be maintained and updated for accuracy regularly and made available for access and reference local to the area of usage, as appropriate, and, especially for documents in electronic form, also available on a centralized, Code IO documentation server or share with suitable read/write access controls and storage capacity.

Baseline and working “red line” sets of all existing documentation, processes, drawings, and Standard Operating Procedures (SOP’s) required within the scope of performance of this task are essential and are to be regularly maintained and updated for baseline and “red line” accuracy. Modifications to the “red line” sets are to be done promptly after a change, addition, maintenance, or modification has been executed that affects the current process or configuration documentation. Baseline drawings and SOP’s should be updated from the “red line” information annually or as the amount of changes dictate.

All work areas, tooling, equipment, and systems will be maintained in a neat and organized manner to help meet the goal of maintaining a safe and clean work environment. This includes the inside and outside of government provided vehicles that may be utilized by the support staff.

All work will be conducted safely and work sites will be cleared of all debris, unnecessary equipment, materials, and parts once the work is completed.

Staff members are required to possess a valid California Driver's license at all times, be able to support lifting the maximum unassisted weight allowed by OSHA regulations, work on ladders and scaffolding, work on rooftops, and other difficult or confined areas both above and below ground.

Staff may be required to, upon on-site certification, operate man lift's, forklifts, and other lifting and transport aids in support of relocating, installing, and maintaining resources, working on antenna systems, towers, and building interiors and exteriors.

Staff members may be required to, upon certification, access confined spaces, underground signal vaults, and building areas that may contain lead, asbestos, or other hazardous materials utilizing approved methods in support of inspecting, installing, certifying, modifying, or maintaining video/audio cabling and related system components.

A.2.1.2 VIDEO SERVICES & FACILITIES OPERATIONS & MAINTENANCE

Support in this area shall provide for the configuration, operation, testing, troubleshooting, documentation, status reporting, and maintenance of equipment, records, information resources, facilities, processes, and capabilities necessary for the proper configuration, daily operation, and maintenance of dedicated, Ames, and Moffett Field wide video, audio, control, collaboration, and intercom distribution systems, infrastructures, and related Center coordinated operations, facilities, and services.

Typical, but not comprehensive, of these systems, infrastructures, services, and related Center coordinated operations and maintenance services and activities are:

- Ames specific video/audio gateway, distribution infrastructure, & headend capabilities.
- Analog, digital, & point-to-point dedicated video, audio, control, collaboration, and intercom infrastructures, interfaces, & headends including Agency provided DTV and external intercom loop interface equipment.
- Video Control Center (VCC) capabilities, functions, services, & facilities
- External Video Gateway (EVG) capabilities, functions, services, & facilities.
- Digital & Desktop Video Services (DV) capabilities, functions, services, & facilities.
- Moffett-wide dedicated & specialized video, audio, control, and intercom distribution systems & infrastructures.
- Digital Satellite Systems (DSS), commercial satellite, & similar video/audio communication equipment & services.
- Commercial television & private cable television (CATV) equipment, services, & franchises through appropriate, and Government approved, mechanisms

- Meeting and multi-media collaboration facility scheduled and on-call room operations, operator support, and system maintenance.

Support shall include scheduling, operation, documentation, status reporting, information resources management, processes, and maintenance for the equipment, facilities, and resources comprising the Video Control Center (VCC)/External Video Gateway (EVG) switching, signal processing, and gateway complex located at building N240 and all ancillary equipment, capabilities, programming, feeds, antennas, services, and headends passing through, or interfacing with, the VCC/EVG including the Center's dedicated video/audio cabled connectivity, commercial services (DSS, CATV, off-air, microwave, etc.), and local video distribution infrastructure collectively referred to as "VidNet"; VIDEO NETWORK.

Associated baseline process, SOP, drawing, and document sets are to be formally updated and delivered to the Task Requester for acceptance as permanent baseline documents and drawings, and to become the basis for subsequent working red line sets if a significant system change is made that could affect the accuracy of this documentation.

Existing documents typical, but not exclusive, of the type of baseline documents referenced for maintenance include:

- N240 EVG/VCC (AKA VCC) Documentation Drawing & Wiring List (Sony)
- N240 EVG/VCC Video Control Center Documentation & Drawing Sets (DSI)
 - VANSEG (AKA Video Control Center) Standard Operating Procedures
 - N240 EVG/VCC Electrical Power & Grounding Systems
 - N240 EVG Antenna Systems
 - N240 EVG Roof Conveyance System
 - N240 EVG Direct Satellite System
 - N240 EVG/VCC Crestron Control System
- VidNet Broadband Network Drawing Set (NASA)
- Ames DTV Integration Project Drawings (NASA)
- N240/218-220 Electrical Panel Schedules (NASA)
 - N240/220 Intercom Demarcation Documentation (NASA)

Support in this area shall further include identification, coordination, monitoring, reporting, and verification of infrastructure-wide service locations, signals, signal levels, and content as prescribed and approved by the Task Requester.

Existing documents typical, but not exclusive, of the type of baseline documentation and performance logs referenced for reporting include:

- VidNet Broadband Network Subscriber List (NASA)
- VidNet Video Modulator Status Report (NASA)
- VidNet Amplifier Set-up & Sweeps (NASA)
- VidNet Power Supply Maintenance Log (NASA)
- VidNet Problem Areas & Recommendations (NASA)
 - VANSEG Equipment Calibration Schedule & Status List (NASA)

- Center Meeting & Collaboration Facility Location & Capabilities Listing (NASA)

Coordination with customers, operators, and schedulers of audio/video sources, resources, and events, including material entering and exiting the Center's Video Control Center (VCC)/External Video Gateway (EVG), MultiPoint Control Unit (MCU), Video Teleconferencing System (ViTS), Collaborative Facilities, Main Auditorium, Meeting/Conference Center, Visitor Center, and similar auxiliary facilities and services, will be routinely required and off-shift support may also be required for some of these events.

Support shall also include coordination, establishment, documentation, and maintenance of proper paths, links, signals, configurations, processes, and status information utilizing the Center's capabilities and infrastructures in conjunction and coordination with the Center's External Interface, Cable Plant, Network Operations, IT Security, and IT Support Center functions, capabilities, and operating guidelines to meet on-site and off-site requirements for video, audio, control, and intercom services, signal routing, and distribution.

Support during other than normal business hours may be required to support special events, emergencies, or other unique requirements.

Support shall also require engineering, documentation, repair, and maintenance of equipment, circuits, and systems, down to the component level at times, as may be required to maintain crucial services especially during critical events, emergencies, and disasters.

Equipment evaluation and procurement support will be required as well as installation of appropriate equipment hardware, firmware, and software upgrades or modifications that may become available or be required for proper operation, upgrade, or maintenance of facilities, capabilities, and resources.

A2.2 Live Communications

This task shall provide for support and services in the Live Communications area including but not limited to Telephone Switch Operations/Maintenance, Voicemail Operations/ Maintenance, Customer pre-fielding support and installations, Cable Research, Operator Support, management/update of various Voice Systems databases, and support of a Voice over IP (VoIP) deployment.

Voice over IP is an active, Government run project with the eventual goal of implementing a Voice over IP solution across the entire center. For the period of this contract, the contractor is expected to provide support in the area of Add/Move/Changes associated with multiple pilots, input into product selection, and assistance for testing and technical implementation of a Voice over IP solution for the campus.

Upgrades, repairs, and new installations of or to voice systems hardware and software are to be performed as needed. Upgrades, enhancements, and new installations to the voice systems hardware and software must be reported to and approved by the Task Requester prior to implementation and/or procurement. Also, considerations for upgrades and enhancements to voice systems hardware or software must be reported to the Task Requester prior to expending

more than a cursory level of effort. Changes in processes and procedures are to be presented to and approved by the Task Requester prior to implementation.

Adequate inventory levels are to be maintained and spare materials are to be returned to stock as appropriate. The transportation, removal, construction, wiring, termination, inspection, etc. of all work performed under this task is to be accomplished according to best industry performance practices and safety standards.

A2.2.1 DETAILED REQUIREMENTS

1. Switch Maintenance

The contractor is to provide warranty of the Nortel SL-100 telephone switch by a Nortel authorized warranty contractor (current vendor is TRCA) contractor to provide the maintenance and administration for the Nortel SL-100 by certified, experienced technician. Support includes Help/Repair desk support, Emergency Technical Assistance Service (ETAS), the Repair and the Return of Switch defective equipment, an in house inventory/supply of critical cards and replacement parts for the SL-100 (per Nortel), and 24/7 Remote System Monitoring. On-call support is required. Any potential service effecting work requiring down time to the NASA campus is to be performed off-hours and directly coordinated with the Task Requester. Overtime support is required for non-switch maintenance facility requirements.

All staff supporting the switch maintenance activity must have direct experience with the Nortel SL-100 digital telephone system, have current Nortel SL-100 certified training, and have a current Nortel SL-100 Maintenance Certifications.

2. Voicemail Maintenance

The contractor is to provide a maintenance contract for “on-call” support for the existing Voicemail. No on-site staff will be required. Contractor should be prepared to explore enhancing the voice-mail mail system with an Automatic Call Director (ADC) system to reduce operational costs and maintenance costs if requested.

3. Dedicated Administrative Support

The contractor is to provide dedicated, administrative staff to support the following activities and services:

- Remedy Ticket Processing
- Billing/invoice preparation
- CAIRS data management
- Voicemail Administration
- Support/Help Desk
- Calling Card Administration
- Central Fax Service
- Telident 911 system support.

This activity will be responsible for assuring the timely renewal of the CAIRS and Telident maintenance contracts. At this time, the Telident 911 system is reaching End of Life, and the

vendor must be consulted to upgrade the hardware and migrate the existing support contract to the new hardware.

The following activities are to be performed from the dedicated staffing pool that also support the SERVI, chargeback subtasks relating to telephone Moves, Adds and Changes (MACs), maintenance, new installations and repair service for the Moffett Agency telephone support.

4. *Dedicated Pre-fielding Support*

The contractor is to provide dedicated labor (related to telephone service) to verify customer requirements; provide user education; prepare work order documentation; update floor plans; provide quality control related work; and perform disconnects. Must have working knowledge of telephone installations relating to industry standards and practices, either from documented past experience or current on the job-training plan.

5. *Dedicated Cable Research Support*

The contractor is to provide dedicated labor to verify cable pair records in CAIRS; identify and document copper cable paths for non-PBX type services (special circuits i.e., alarms, LEC, CLEC other services); keep communications closets clean. The contractor is to provide for the removal, construction, wiring, labeling, testing, termination, the coordination of transporting materials, and inspection of all work as required. Staff must have working knowledge of telephone installations relating to industry practices from documented past experience and maintain current certifications.

6. *Dedicated Repair*

The contractor is to provide the most effective method to perform telephone (instrument) repair services.

7. *Dedicated Misc. Labor*

A subtask is to be created for misc. meetings, training functions, and activities not easily fitting into other dedicated tasks.

8. *Misc. Material*

A subtask is to be created for ODC purchases to include necessary materials required for completion of any of the above activities. (i.e., software maintenance; any switch or voicemail upgrade; tools; etc)

9. *Dedicated Operator Support*

The contractor is to provide dedicated labor (related to telephone service) to support the Center's primary incoming phone number (650-604-5000). This support requirement includes, but is not limited to answering customer questions as to person's or facility phone numbers, placing international calls, maintaining up to date after hours recording and other operator assisted customer requests. This position will provide support for the entire Ames Campus. The support also includes the responsibility for maintaining up to date telephone numbers for both NASA and Moffett organizations. Operators are also responsible for disseminating other operator related information to callers as appropriate. Must have working

knowledge of telephone operations relating to industry practices, either from documented past experience or current on the job-training plan. Hours of support are 7:00 AM to 5:00 PM Monday through Friday excluding government holidays.

10. Maintenance of Work Areas

The contractor is responsible for insuring the following:

- All work areas will be maintained in a neat and organized manner to help meet the goal of maintaining a safe and clean work environment
- All installations will be conducted safely and cleared of all debris, equipment and parts once a work order/repair is completed. The contractor shall be responsible for cleaning up all debris associated with his installation on a daily basis. The contractor shall vacuum all building spaces, and Network Equipment Rooms (NER) and work areas that may have been soiled by drywall dust, ceiling tile dust, or terminated cables
- All property and equipment that has been deemed unusable or is no longer required should be turned over to the property custodians for removal.
- Clean telephone cabling system components of dirt and construction debris upon completion of installation.
- Protect installed equipment and components from damage during the installation/construction period.

All work areas shall be left in the same condition as when work started; touch-up scratched or marred enclosure surfaces to match original finishes.

A2.3 Communications Cable Plant General Requirements

The Communications Cable Plant (CCP) refers to all internal building cable infrastructure and the external communications cable plant on the federal-owned land occupied by NASA, the U.S. Navy, the California National Guard Moffett Station and NASA Research Park. This comprises the Ames/Moffett Field campus. The contractor shall administer, design, install, rearrange, document, troubleshoot and control the CCP on the Ames/Moffett Field campus under the direction of the NASA CCP manager. The existing CCP resources shall be diligently administered in a manner to minimize costs and service problems while maximizing the capacities and capabilities. Additions, changes and rearrangements to the CCP shall be designed and installed in accordance with current telephony, video and data communications standards. The Contractor shall provide support, insight and consultation regarding the Cable Plant Business Model, Cost models, policy and procedures, industry best practices and architectural modifications, changes and exceptions. The CCP information shall be documented and stored in a hardened standard data system. NASA shall control access to, and use of, the CCP in order to maintain system integrity and maximize system capabilities.

A2.3.1 Internal Communications Cable Plant (ICCP):

The inside cable plant media includes fiber optic, coax and copper cables. Every cable plant standard available in the last 40 years is represented. Circuit speeds supported range from intercom (<.01 Mbps) through high speed data (>2,000 Mbps). It is used extensively to provide connectivity for all types of telecommunications systems such as voice, phone, fax, data, video, broadcast analog video, security, safety, alarms, audio, RF, imaging and instrumentation between buildings, laboratories and other research facilities.

A2.3.2 External Communications Cable Plant (ECCP):

NASA has responsibility for all external communications cable plant (ECCP). The external communications cable plant is a valuable government resource used to support data, video and telecommunication services for federal and civilian customers on the Ames campus. The external communications cable plant includes the supporting structures (underground conduits, manholes, pull boxes, pole lines), the copper, coaxial and optical fiber external communications cables in these conduits and the external communications cable terminals for these outside plant external communications cables (MPOE, PDF).

A2.3.3 CCP Requirement Details

Provide all resources necessary to document external communications cable plant (ECCP) underground structures, communications cables and operating policies for centralized support of the ECCP which supports Ames buildings and all other Moffett Field facilities and components, including those institutional facilities outside the current fence and on federal land.

Detailed requirements will include:

- Arrange, coordinate, administer and supervise the installation of metallic and optical external communications cables and underground conduit structures, and ensure these cables and conduits are terminated and allocated in accordance with Center approved operating policies. Discovery, documentation, trouble-shooting, repair, safety inspections, and permitting as required.
- Configuration management and positive change control for all external communications cables and conduits in all elements of the External Communications Cable Plant up to and including termination at the primary communication closet or demarcation point in each building.
- Discovery, documentation, assessment and tracking of existing Internal/External Communications Plant (I/ECCP) capabilities and capacities as requested and as the funds are provided.
- Consultation for all customer requests of I/ECCP services and resources. Consultation includes resources, schedule, possible definition of labor resources (in-house or out-source) and costs. Consultation also includes impacts to operations, maintenance and trouble-shooting.

- Prepare permit requests as necessary, and ensure compliance with all NASA, Federal (e.g., OSHA) and State safety and environmental regulations.
- Administer and control occupancy and use of I/ECCP conduits and manholes. Monitor and maintain the outside plant to ensure positive configuration control, compliance with safety and environmental regulations, physical security against unauthorized use, and facilitate plans to secure it.
- Document communication manholes using digital photography, fill lists, punch lists, and AutoCAD drawings as required.
- Maintain a centralized drawing database and cable assignment database in support of all Center programs and projects, and facilitate hardening of storage facilities and duplicates of hard and soft copy drawings, data sheets, and cable assignment records in conjunction with the institutional Documentation task.

Coordinate all project work with outside carriers. This may include the development of a project plan, detailed schedules, and final review and approval of engineering drawings to ensure compliance with prevailing, codes, standards and regulations. Total NASA/PSGS costs should also be calculated for possible future reimbursement. In addition, for quality assurance purposes provide oversight and direction of the actual work as performed on NASA premises by carrier contractors. In particular ensure that the carrier contractors adhere to all prevailing health and safety procedures as established by Code Q.

A2.3.4 CCP Documentation

The contractor shall provide drafting services and documentation archives for all Code IO CCP functions; shall establish consistent standards for this documentation; shall archive/store electronic documentation in a secure standard data system; and shall establish and maintain a hard-copy “Master Library” for this infrastructure.

The contractor shall provide all resources necessary to support drafting and documentation; and shall establish a hard copy “Master Library” for telecommunication drawings related to services provided by Code IO. All documents/engineering drawing should be in black and white using color only when the situation warrants it. All legends should be BICSI compliant. Exact size/dimensions should be displayed where they can provide value added. Employ digital photos where appropriate. All information displayed should be field verified for accuracy. Use old building drawings where practical to baseline from. All construction drawings should have traceability; need to be able to see the evolution of a drawing/document through its life cycle. With this capability, one could trace back to a faulty assumption that may not initially impact a system/installation until some time in the future.

Specific requirements include:

- Provide drafting/drawing support for all telecommunications services. Prepare AutoCAD drawings for the following services: External Cable Plant Infrastructure;

Building Telephone Cable Distribution; Building Data Cable Distribution; Video/Audio Cable Plant Infrastructure; Network Engineering Diagrams; System Logical Diagrams; JT Facility Diagrams, or as specified by the Task Requester.

- Establish a consistent and standard drawing/documentation format and symbols.
- Establish and maintain a “Master Library” of current drawings of Ames telecommunication and network infrastructures. Provide hard copy of existing drawing as requested by IO.
- Establish back-up system for “Master Library”.
- Provide and maintain an Electronic Index of the drawing titles in the “Master Library”.
- Create new work processes related to requesting, submitting, changing and archiving Telecommunications, Data, Network, Video, Conduit, and Facility documents or drawings.
- Archive selected “Master Library” drawings with ARC Engineering Documentation Center in Building N213. Task Requester shall identify which drawings will be archived with EDC.
- Track budgets and metrics related to documentation.

A2.4 Network Operations

The purpose of this part of the task function is to provide staffing of the Network Operations Center (NOC) for operational support, maintenance and management of the Ames Research Center Local Area Network (ARCLAN) which includes the wired and wireless LANs, Border Router, DMZ, remote access services and Firewalls and the Ames External Interface Telecommunications Gateway (EI) which includes the Ames Internet Exchange (AIX).

Note: Any references to “network infrastructure” or “the network” in this TOD include both LAN and WAN components described above.

A2.4.1 Network Operations Center – Local Network Administrators (LNA)

Provide technical staffing for the Network Operations Center.

The NOC serves as the focal point for all incoming network-related issues via the Tier 1 IT Support Center (ITSC) through Remedy ARS. It functions in a Tier 2 capacity comprised of the LNA group and other network staff and is responsible for resolving network-related issues and for interfacing with the network engineers and other network operations staff with the ultimate goal of providing network support to all Ames and Moffett Field customers.

The NOC operates and maintains the Ames EI Telecommunications Gateway Facility, which includes the Ames Internet eXchange (AIX) peering points, on and off-shift to ensure continuous operation 24x7x365. It maintains a database of all customer organizations that co-locate their equipment in N254 and their personnel who are granted unescorted access into the facility. The NOC provides technical support to the AIX customers as needed for the co-location of their equipment.

The NOC is responsible for proactively monitoring the status of ARCLAN and EI in conjunction with the NMS Engineer and providing up-to-date status of any major occurrences.

The NOC also provides LNA support of customers for all catalog work to be done under Serv-I as defined in the LNA Business Model. Work performed under the LNA subtask includes, but is not limited to, the ongoing administration, maintenance, operation, repair, installation, and documentation of ARCLAN and EI. They are responsible for fabrication and installation of all necessary cabling for circuits and equipment as required by a customer job. They work with the External Communications Cable Plant (ECCP) managers to complete the provisioning of T-1 lines once the ECCP has assigned fiber pairs by configuring and installing and testing the necessary components between the frame and the customers CSU/DSU.

Additionally, LNAs provide assistance with network design, customer configurations, circuit troubleshooting, configuration management and implementing modifications to the network and network infrastructure.

The NOC performs system administration for NOC and EI systems as well as hostmaster services for the ARCLAN Domain Name System and the root name server (e.root-servers.net), including but not limited to routine activities (such as file system maintenance and management, backups, moves/adds/changes and performance tuning), operating system installations and upgrades, installation and configuration of peripherals, building and installation of public domain or third party software applications and scripting and programming to automate routine administrative tasks.

A2.4.2 Network Engineering

The network engineers are responsible for Tier 3 NOC support for the network, network security, network adds/moves/changes, new technology analysis, and support as required for network projects and other customer work assigned to the NOC.

The engineers provide support, ranging from the external gateway Internet exchange (federal and metropolitan area) to a single local end user on the ARCLAN. Engineering support includes design and implementation of various customer network requirements which include interfaces to various customer Wide Area Networks (WANs), ARCLAN, extensions to various buildings on the Center cable plant or RF links,.

Engineering provides support and guidance for the LNAs and NMS engineers for the overall maintenance and management of the network.

A2.4.3 Network Monitoring

Provide customer support for, and operational monitoring of ARCLAN, EI, AIX and Centerwide IT services and applications used by Ames and Moffett Field staff.

The Network Monitoring System (NMS) Engineer is responsible for system administration of the NMS. This involves maintaining the NMS hardware and software configuration and assisting network personnel in the use of the NMS for monitoring and managing the network infrastructure in its operational state, managing alarm states and developing reports to report the state of the network.

The NMS engineer shall continue developing network performance metrics for experimental and test networks as they are supported through the NOC and Network Engineering. Baseline metrics and applications test metrics shall be developed. The NMS engineer shall maintain documentation of all Center bandwidth capacity and utilization on external interfaces, and design and implementation of special monitoring, analysis and display of data (e.g., payload operations center, Network Operation Center, special projects) in support of network engineering.

NMS tools and network performance metrics and graphs shall be made available via a secure web-based front end when possible. Customer requests for network performance metrics shall be made available upon request when approved by the Task Requester.

All AIX participant traffic flow shall be monitored and be available for viewing.

A2.4.4 Remote Access Services

Provide system administration and user support for two centerwide remote access services: Virtual Private Network (VPN), and the MyWeb/ service. The task also provides system administration for the RADIUS authentication servers that control access to these, and other services.

The RADIUS servers in this task will also provide authentication services for the Center's Wireless Local Area Network (WLAN), and LAN equipment. The RAS/VPN staff will participate in the testing and integration of new WLAN installations. Given the interdependencies between the WLAN, RADIUS, and VPN services, an ongoing level of engineering and user support may be required after the WLAN becomes operational.

The primary goal of the area is to provide reliable, secure, remote data communications to the center, and be able to produce reports that document the usage levels of the services.

A2.4.5 Firewalls

Provide support of the ongoing IT security activities as pertaining to internal and external networking. This includes support for new IT security development activities.

Support includes but is not limited to the following:

- Firewall incident response and troubleshooting

- Engineering analysis and support for testing and deployment of new tools/technologies (e.g. VPN, MyWeb, PKI, IPSEC, SecureNet)
- Introduction of new ARC applications and services
- Enhancing existing services
- Updating firewall hardware and/or software
- Reporting on ARC firewall logs
- Reporting on SecureNet firewall logs
- Reporting on other supported firewall logs
- Other firewall and DMZ related activities

A2.4.6 External Interface Business Office

The External Interface (EI) Business Office operates the Ames Internet Exchange (AIX) located at the N254 External Interface Telecommunications Gateway. It consists of the Federal Internet Exchange-West (FIX-West), Metropolitan Area Exchange-West (MAE-West), Multicast Internet Exchange (MIX), Next Generation Internet Exchange West (NGIX-West), Multicast Internet Exchange Next Generation (MIXng) and Version 6 Exchange (v6X). Building N254 provides a secure, hardened facility for federal, commercial and university clients for co-locating equipment.

The AIX is a distributed exchange facility. Participant networks can currently connect from Palo Alto Internet eXchange (PAIX), Equinix, and the MCI MAE-West facility as well as locally from Ames Research Center. This metropolitan connectivity provides NREN/Columbia Project with paths to the Super Computer research network and NASA Research Park (NRP) access to network providers. Approximately 99% of all of Ames' telecommunications is supported at least in some degree by this project office and through N254. This support typically involves extending landline and satellite communications circuits through N254.

The AIX also supports research and learning technology, educational and other special science and technology programs associated with NASA and Ames Research Center (ARC), other federal agencies point-to-point links, private commercial networks that require collaborative connections, and research with federal agencies and universities into advanced protocols, traffic management and networking switching technologies.

The EI Business Office shall:

- Provide the Task Requester with input required for updating and revising all Reimbursable Space Act Agreements (RSAA) and Non Reimbursable Space Act Agreements (NRSAA) and Memorandum of Understandings (MoU) between External Interface and participant networks.
- Provide the functional interface between the AIX and the current and potential user community to insure both stable operation and future growth.
- Provide the interface between the Ames user community and the external world for problem resolution by working through the NOC.
- Notify the Task Requester of all customer and internal systems planned for de-activation immediately upon notification from customers, or as noted internally, to support on-going facility space allocation planning.

- Facilitate the removal of all de-activated customer equipment from the facility no-to-exceed 30 days from service deactivation, or expiration of a Space Act Agreement.
- Provide support and consultation to the Ames NISN Center Representative for all WAN activities.
- Participate in technical forums and meetings in support of AIX business such as NISN Forum, North American Network Operators Group (NANOG) and DREN.

A2.4.7 Documentation and Configuration Management

All Network Operations documents shall be stored in a sanctioned code IO file sharing system.

The NOC shall maintain and update:

9. Standard Operating Procedures (SOP). SOPs shall include hazardous material instructions and be located with or near MSDS.
10. Documentation of all circuits add, drop, changes within EI facilities and remote Points of Presence (PoP) locations.
11. All circuit databases, to include local (intra campus) circuits/connections.
12. All cabinet elevation drawings and floor plans.
13. Building network diagrams

All equipment shall be incorporated into the configuration management system unless the hardware does not support the integration.

A2.4.8 Network Administration Support for Security Operations Center

The Security Operations Center (SOC) network consists of a single Juniper IGP device which peers with a NISN SIP router, providing L3 transit to other NASA resources and the Internet. Behind the Juniper IGP, are three /24 networks which are logically segmented into security domains through the IGP into a lab environment, analyst network, and a DMZ, where all the SOC servers are housed. The /24's are further segmented into multiple L3 broadcast domains. There are several L2 switches with connect into the Juniper IGP. These switches utilize port-security with MAC address filtering to regulate access to SOC network resources at a hardware (workstation/server) level. All devices are physically located in the N254 facility.

There are existing diagrams of this architecture, which were generated and are currently being maintained by SOC staff. There are immediate plans to incorporate an additional Juniper IGP into the SOC border architecture creating a redundant firewall system, in addition to improving peering with NISN to support more external connectivity redundancy. The intent is to have SOC staff perform the forward engineering, implementation, and appropriate documentation updates for this change. Once these changes have been made, and the Operational Readiness Review (ORR) is completed for Phase II of the SOC, routine operational support of this network will be turned over to appropriate contractor staff for ongoing support. Future design changes outside routine operational support are outside the scope of this contract, and will be addressed on a case-by-case basis. The scope of support is per the following specifications:

- 7x24 On-call Network Administration Support

- Provide 7x24 on-call support for all ARCLAN network failures
- Provide 30 minute remote response to the person first reporting the problem for all ARCLAN network failures
- If on-site ARCLAN support is required following remote troubleshooting, arrive within 2 hours.

- Routine Add/Move/Change Activities:

Task shall provide necessary staff to perform routine configuration of Layer 2 devices utilizing agency standards and policies. In addition, contract staff will be responsible for port activations, including existing port-security functionality for new workstations or servers. Due-diligence in terms of insuring proper standard cabling, testing upon activation to ensure appropriate performance and security compliance must be observed. In addition, all documentation is to be updated and reviewed by the Task Requester to reflect the current architecture. Contract staff will ensure that all L2 device IOS versions are to remain current. Any activities that need to be scheduled to meet these requirements shall be coordinated through the Task Requester and SOC Operations Manager.

- Firewall/IVE Administration:

Task shall provide necessary staff to support routine administration of the existing Juniper IGP firewall system and Juniper IVE SSL-VPN system, including keeping the IOS version current, and overall administration of the firewall rule set. All proposed rule changes or significant configuration changes to these systems shall be reviewed and approved by the Task Requester and SOC Operations Manager prior to implementation. Any activities that need to be scheduled to meet these requirements shall be coordinated through the Task Requester and SOC Operations Manager. A mechanism shall be put in place to track configuration changes to the firewall rule set. The contractor shall provide support for account creation on the Juniper IVE system.

Back-ups of the critical configuration components of these systems shall be maintained on a weekly basis, and testing of the restore from back-up process and overall redundancy of these systems shall be performed, with results documented, annually.

- Network Configuration Management and Monitoring:

The contract shall provide a configuration management system, which periodically records configuration changes on all Layer 2 devices, and notifies the appropriate personnel when changes are made, and what the exact configuration changes were, with the ability to track configuration changes back to the source of the person making the change.

In addition, the contract shall set up a system that actively polls all SOC Network devices with the intent of providing the following information/functionality:

- Traffic Graphing of all “critical” links (generally aggregate links)
- Alarming when expected capacity on a “critical” link is exceeded

- Alarming when a network device becomes unreachable from the Network Monitoring server
- Notification to appropriate staff when a network device becomes unreachable

A2.4.9 Additional Support Requirements and Projects

Additional support requirements and projects are performed on an “as needed” basis as required by the Task Requester for requests such as special projects, mission support, and emergency response. Special requests shall be reviewed by the Task Requester prior to start.

DSS Satellite Support

Provide maintenance and operations of various satellite and video equipment at the EI facility. Provide engineering services for all non-DSS satellite downlinks and all satellite uplinks located at N240, and operational and engineering support for such projects such as JASON, the Space Shuttle, and International Space Station.

Emergency Communications Center (ECC)

Provide support to the Ames Emergency Communications Center (ECC) on all issues pertaining to the provision and distribution of emergency wide-area data, voice and video communications services to limited emergency preparedness and executive management level users, during outages to any of these communications technologies during a declared state-of-emergency by the Center Director or Center Emergency Preparedness Manager.

Stockroom and Logistics

The contractor will be responsible for directing the requisitioning, receipt, verification, storage, safekeeping and issuance of parts, supplies, accessories, tools and test equipment necessary to maintain a wide variety of functional areas necessary for the operation of Code IO.

The contractor will work with the customer to create and refine processes for the operation of the stock room and tool crib servicing the Data, Voice, Cable Plant and Video functional areas. The contractor will interface with technicians and Project leads in the areas of materials research, procurement, tracking and job material staging. The contractor activities will include reporting, trend analysis stock replenishment, materials tracking, maintenance, calibration, shipping and receiving, and sign in/out procedures. The contractor will also be responsible for maintaining the JTN Property database and for building professional relationships with applicable vendors.

The contractor will work with Code IO in the refinement of the Code IO Business Model for Network Operations and Communications support functions through the introduction of tracking systems and utilizing Solomon modules within the SERV-I Solomon application.

Specific requirements include:

- Maintenance of network supply cabinet

- All parts and equipment should be in a controlled environment
- Track and restock most frequently used parts based on usage
- Procurement of parts and equipment needed for customer jobs
- Storage of network test equipment for checkout
- Staging for larger projects
- Work with various network groups to identify common area for storage of parts and equipment
- Establish and maintain an inventory of required equipment spares
- Develop report on monthly usage for stocking and sparing
- Manage the checkout/in process for all Cushman's assigned to Code IO
- Manage the checkout/in process and maintenance of the contractor provided truck
- Act as Alternate Scheduler for IO N233 Conference facilities

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 Initiate a new Task
 X Modify existing Task Number 407.001.2

Task Title: Telecommunications and Data Network Operations

Planned Start Date: October 1, 2009 Planned End Date: July 31, 2010

ACITS2 SOW Reference C.1.2

Modification 1 – January 20, 2010: This modification is to extend the period of performance to July 31, 2010 and to remove Voice, Video, Cable Plant, Logistics, Documentation, AMO funded projects, and SOC support requirements from this task. Only Network Operations and AIX requirements, approach, deliverables, and task charge points should remain on this TOD. Requirements, approach, deliverables, and charge points for the Voice, Video, Cable Plant, Logistics, and Documentation functions will be moved to a new task (Task 411 “Live Communications and Telecommunications Infrastructure”) starting on February 1, 2010. AMO projects and SOC support are being moved to Task 409 (Code IQ Support) retroactive to October 1, 2009. This TOD will continue to be funded at the subtask level.

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

~~This task is a consolidation of all operational tasks related to telecommunications or data networks, including Video, Voice, Cable Plant, and Ames Research Center Local Area Network (ARCLAN). The task will provide Tier II/III support, routine maintenance, Adds/Moves/Changes, change/configuration control, monitoring, alarming, incident response, and documentation for each element. Additionally, this task will provide appropriate personnel to maintain internal CAD drawings for the purposes of permitting and documentation, and a stockroom and logistics function to maintain an inventory of frequently used components, and track maintenance contracts.~~

A.2.1 Institutional Video Services

~~This task will provide daily operational support; systems design expertise, and maintenance services to the NASA Ames Research Center. Scope of this includes analog and digital video/audio, including routing, distribution, presentation, and facilities. This task also includes support of collaborative and multimedia environments, as well as intercom operations.~~

~~Expertise required includes consultation, engineering, coordination, operation, maintenance, documentation, and service management within the areas cited above, directly supporting the mission and goals of NASA Ames Research Center.~~

~~The overall approach to this task must provide for the daily operation, maintenance, documentation, scheduling, and status reporting of institutional video/audio services and projects. Prompt, clear and consistent communication is required to insure that all components of these systems are functioning optimally, and within the scope of NASA Ames Research Centers expectations.~~

~~The approach to the Task must emphasize the importance of having personnel available in the EVG/VCC facility during core business hours. It is also imperative that scheduled events, projects, and activities are completed on or before the agreed upon date and within the agreed upon costs.~~

~~Further, the approach to the Task must recognize the importance of configuration control and management, and continuous review and improvement to processes and procedures as key to managing performance risk and averting or correcting performance deficiencies efficiently. Workspaces, office spaces, and work activities must be consistent with professional practices and Ames Health & Safety guidelines.~~

~~As government owned and provisioned infrastructures and services, it is stressed that all proposed changes under the Task to facilities, systems, services, and infrastructures must be presented, in advance of execution, for formal configuration management review and approval of the Task Requestor prior to actual execution with the possible exception of emergency, short term, changes deemed essential to meet immediate operational imperatives that could not otherwise be reviewed in advance with the Government. Exceptions will require a formal incident review and configuration management review for appropriateness and change concurrence of the Task Requestor.~~

A.2.1.1 General Performance Guidelines and Standards

~~All work shall be performed to specification and in a neat and workmanlike manner, complying with all applicable codes, regulations, standards, independent lab specifications and the recommended manufacturer installation practices as identified and clarified with specific policies, procedures, and practices defined in Video/Audio Networks and Systems Engineering (VANSEG) operational guidelines and documents based on accepted and appropriate industry and Government regulations, standards, and practices (See references).~~

~~**Note:** Where there is any conflict between specifications, standards, regulations or codes between VANSEG requirements and other general industry standards or Government regulations, an examination of the conflict will be performed by the Task Requestor, in conjunction with the Task Manager, and a final determination will be provided by the Task Requester with concurrence of the COTR as required.~~

~~References:~~

~~Codes~~

- ~~• NESC~~
- ~~• NEC~~
- ~~• UBC~~

~~Regulations~~

- ~~• NTIA~~
- ~~• FCC~~
- ~~• PUC~~
- ~~• OSHA~~

~~Standards~~

- ~~• EIA/TIA~~
- ~~• IEEE~~
- ~~• NEMA~~
- ~~• ANSI~~
- ~~• NECA~~

~~Independent Labs~~

- ~~• UL~~

~~References~~

- ~~• BICSI Manual~~
- ~~• AT&T Engineering Handbook~~
- ~~• Belleore~~
- ~~• Manufactures Installation Practices for installed equipment~~
- ~~• National Electrical Installation Standards~~

~~All documents, processes, and documentation pertaining to the Task and supported Task activities and systems are to be maintained and updated for accuracy regularly and made available for access and reference local to the area of usage, as appropriate, and, especially for documents in electronic form, also available on a centralized, Code IO documentation server or share with suitable read/write access controls and storage capacity.~~

~~Baseline and working “red line” sets of all existing documentation, processes, drawings, and Standard Operating Procedures (SOP’s) required within the scope of performance of this task are essential and are to be regularly maintained and updated for baseline and “red line” accuracy. Modifications to the “red line” sets are to be done promptly after a change, addition,~~

~~maintenance, or modification has been executed that affects the current process or configuration documentation. Baseline drawings and SOP's should be updated from the "red line" information annually or as the amount of changes dictate.~~

~~All work areas, tooling, equipment, and systems will be maintained in a neat and organized manner to help meet the goal of maintaining a safe and clean work environment. This includes the inside and outside of government provided vehicles that may be utilized by the support staff.~~

~~All work will be conducted safely and work sites will be cleared of all debris, unnecessary equipment, materials, and parts once the work is completed.~~

~~Staff members are required to possess a valid California Driver's license at all times, be able to support lifting the maximum unassisted weight allowed by OSHA regulations, work on ladders and scaffolding, work on rooftops, and other difficult or confined areas both above and below ground.~~

~~Staff may be required to, upon on-site certification, operate man lift's, forklifts, and other lifting and transport aids in support of relocating, installing, and maintaining resources, working on antenna systems, towers, and building interiors and exteriors.~~

~~Staff members may be required to, upon certification, access confined spaces, underground signal vaults, and building areas that may contain lead, asbestos, or other hazardous materials utilizing approved methods in support of inspecting, installing, certifying, modifying, or maintaining video/audio cabling and related system components.~~

~~**A.2.1.2 VIDEO SERVICES & FACILITIES OPERATIONS & MAINTENANCE**~~

~~Support in this area shall provide for the configuration, operation, testing, troubleshooting, documentation, status reporting, and maintenance of equipment, records, information resources, facilities, processes, and capabilities necessary for the proper configuration, daily operation, and maintenance of dedicated, Ames, and Moffett Field wide video, audio, control, collaboration, and intercom distribution systems, infrastructures, and related Center coordinated operations, facilities, and services.~~

~~Typical, but not comprehensive, of these systems, infrastructures, services, and related Center coordinated operations and maintenance services and activities are:~~

- ~~–Ames specific video/audio gateway, distribution infrastructure, & headend capabilities.~~
- ~~–Analog, digital, & point to point dedicated video, audio, control, collaboration, and intercom infrastructures, interfaces, & headends including Agency provided DTV and external intercom loop interface equipment.~~
- ~~–Video Control Center (VCC) capabilities, functions, services, & facilities~~
- ~~–External Video Gateway (EVG) capabilities, functions, services, & facilities.~~

- ~~–Digital & Desktop Video Services (DV) capabilities, functions, services, & facilities.~~
- ~~–Moffett wide dedicated & specialized video, audio, control, and intercom distribution systems & infrastructures.~~
- ~~–Digital Satellite Systems (DSS), commercial satellite, & similar video/audio communication equipment & services.~~
- ~~–Commercial television & private cable television (CATV) equipment, services, & franchises through appropriate, and Government approved, mechanisms~~
- ~~–Meeting and multi-media collaboration facility scheduled and on-call room operations, operator support, and system maintenance.~~

~~Support shall include scheduling, operation, documentation, status reporting, information resources management, processes, and maintenance for the equipment, facilities, and resources comprising the Video Control Center (VCC)/External Video Gateway (EVG) switching, signal processing, and gateway complex located at building N240 and all ancillary equipment, capabilities, programming, feeds, antennas, services, and headends passing through, or interfacing with, the VCC/EVG including the Center's dedicated video/audio cabled connectivity, commercial services (DSS, CATV, off-air, microwave, etc.), and local video distribution infrastructure collectively referred to as "VidNet"; VIDEO NETWORK.~~

~~Associated baseline process, SOP, drawing, and document sets are to be formally updated and delivered to the Task Requester for acceptance as permanent baseline documents and drawings, and to become the basis for subsequent working red line sets if a significant system change is made that could affect the accuracy of this documentation.~~

~~Existing documents typical, but not exclusive, of the type of baseline documents referenced for maintenance include:~~

- ~~• N240 EVG/VCC (AKA VCC) Documentation Drawing & Wiring List (Sony)~~
- ~~• N240 EVG/VCC Video Control Center Documentation & Drawing Sets (DSI)

 - ~~○ VANSEG (AKA Video Control Center) Standard Operating Procedures~~
 - ~~○ N240 EVG/VCC Electrical Power & Grounding Systems~~
 - ~~○ N240 EVG Antenna Systems~~
 - ~~○ N240 EVG Roof Conveyance System~~
 - ~~○ N240 EVG Direct Satellite System~~
 - ~~○ N240 EVG/VCC Crestron Control System~~~~
- ~~• VidNet Broadband Network Drawing Set (NASA)~~
- ~~• Ames DTV Integration Project Drawings (NASA)~~
- ~~• N240/218-220 Electrical Panel Schedules (NASA)

 - ~~○ N240/220 Intercom Demarcation Documentation (NASA)~~~~

~~Support in this area shall further include identification, coordination, monitoring, reporting, and verification of infrastructure wide service locations, signals, signal levels, and content as prescribed and approved by the Task Requester.~~

~~Existing documents typical, but not exclusive, of the type of baseline documentation and performance logs referenced for reporting include:~~

- ~~• VidNet Broadband Network Subscriber List (NASA)~~
- ~~• VidNet Video Modulator Status Report (NASA)~~
- ~~• VidNet Amplifier Set-up & Sweeps (NASA)~~
- ~~• VidNet Power Supply Maintenance Log (NASA)~~
- ~~• VidNet Problem Areas & Recommendations (NASA)~~
 - ~~○ VANSEG Equipment Calibration Schedule & Status List (NASA)~~
 - ~~○ Center Meeting & Collaboration Facility Location & Capabilities Listing (NASA)~~

~~Coordination with customers, operators, and schedulers of audio/video sources, resources, and events, including material entering and exiting the Center's Video Control Center (VCC)/External Video Gateway (EVG), MultiPoint Control Unit (MCU), Video Teleconferencing System (ViTS), Collaborative Facilities, Main Auditorium, Meeting/Conference Center, Visitor Center, and similar auxiliary facilities and services, will be routinely required and off-shift support may also be required for some of these events.~~

~~Support shall also include coordination, establishment, documentation, and maintenance of proper paths, links, signals, configurations, processes, and status information utilizing the Center's capabilities and infrastructures in conjunction and coordination with the Center's External Interface, Cable Plant, Network Operations, IT Security, and IT Support Center functions, capabilities, and operating guidelines to meet on-site and off-site requirements for video, audio, control, and intercom services, signal routing, and distribution.~~

~~Support during other than normal business hours may be required to support special events, emergencies, or other unique requirements.~~

~~Support shall also require engineering, documentation, repair, and maintenance of equipment, circuits, and systems, down to the component level at times, as may be required to maintain crucial services especially during critical events, emergencies, and disasters.~~

~~Equipment evaluation and procurement support will be required as well as installation of appropriate equipment hardware, firmware, and software upgrades or modifications that may become available or be required for proper operation, upgrade, or maintenance of facilities, capabilities, and resources.~~

A2.2 Live Communications

~~This task shall provide for support and services in the Live Communications area including but not limited to Telephone Switch Operations/Maintenance, Voicemail Operations/ Maintenance, Customer pre fielding support and installations, Cable Research, Operator Support,~~

management/update of various Voice Systems databases, and support of a Voice over IP (VoIP) deployment.

Voice over IP is an active, Government run project with the eventual goal of implementing a Voice over IP solution across the entire center. For the period of this contract, the contractor is expected to provide support in the area of Add/Move/Changes associated with multiple pilots, input into product selection, and assistance for testing and technical implementation of a Voice over IP solution for the campus.

Upgrades, repairs, and new installations of or to voice systems hardware and software are to be performed as needed. Upgrades, enhancements, and new installations to the voice systems hardware and software must be reported to and approved by the Task Requester prior to implementation and/or procurement. Also, considerations for upgrades and enhancements to voice systems hardware or software must be reported to the Task Requester prior to expending more than a cursory level of effort. Changes in processes and procedures are to be presented to and approved by the Task Requester prior to implementation.

Adequate inventory levels are to be maintained and spare materials are to be returned to stock as appropriate. The transportation, removal, construction, wiring, termination, inspection, etc. of all work performed under this task is to be accomplished according to best industry performance practices and safety standards.

A2.2.1 DETAILED REQUIREMENTS

10. Switch Maintenance

The contractor is to provide warranty of the Nortel SL 100 telephone switch by a Nortel authorized warranty contractor (current vendor is TRCA) contractor to provide the maintenance and administration for the Nortel SL 100 by certified, experienced technician. Support includes Help/Repair desk support, Emergency Technical Assistance Service (ETAS), the Repair and the Return of Switch defective equipment, an in-house inventory/supply of critical cards and replacement parts for the SL 100 (per Nortel), and 24/7 Remote System Monitoring. On call support is required. Any potential service effecting work requiring down time to the NASA campus is to be performed off hours and directly coordinated with the Task Requester. Overtime support is required for non switch maintenance facility requirements.

All staff supporting the switch maintenance activity must have direct experience with the Nortel SL 100 digital telephone system, have current Nortel SL 100 certified training, and have a current Nortel SL 100 Maintenance Certifications.

11. Voicemail Maintenance

The contractor is to provide a maintenance contract for "on call" support for the existing Voicemail. No on-site staff will be required. Contractor should be prepared to explore enhancing the voice mail system with an Automatic Call Director (ADC) system to reduce operational costs and maintenance costs if requested.

12. Dedicated Administrative Support

The contractor is to provide dedicated, administrative staff to support the following activities and services:

- ~~Remedy Ticket Processing~~
- ~~Billing/invoice preparation~~
- ~~CAIRS data management~~
- ~~Voicemail Administration~~
- ~~Support/Help Desk~~
- ~~Calling Card Administration~~
- ~~Central Fax Service~~
- ~~Telident 911 system support.~~

This activity will be responsible for assuring the timely renewal of the CAIRS and Telident maintenance contracts. At this time, the Telident 911 system is reaching End of Life, and the vendor must be consulted to upgrade the hardware and migrate the existing support contract to the new hardware.

~~The following activities are to be performed from the dedicated staffing pool that also support the SERVI, chargeback subtasks relating to telephone Moves, Adds and Changes (MACs), maintenance, new installations and repair service for the Moffett Agency telephone support.~~

13. Dedicated Pre fielding Support

The contractor is to provide dedicated labor (related to telephone service) to verify customer requirements; provide user education; prepare work order documentation; update floor plans; provide quality control related work; and perform disconnects. Must have working knowledge of telephone installations relating to industry standards and practices, either from documented past experience or current on the job training plan.

14. Dedicated Cable Research Support

The contractor is to provide dedicated labor to verify cable pair records in CAIRS; identify and document copper cable paths for non PBX type services (special circuits i.e., alarms, LEC, CLEC other services); keep communications closets clean. The contractor is to provide for the removal, construction, wiring, labeling, testing, termination, the coordination of transporting materials, and inspection of all work as required. Staff must have working knowledge of telephone installations relating to industry practices from documented past experience and maintain current certifications.

15. Dedicated Repair

The contractor is to provide the most effective method to perform telephone (instrument) repair services.

16. Dedicated Misc. Labor

A subtask is to be created for misc. meetings, training functions, and activities not easily fitting into other dedicated tasks.

17. Misc. Material

~~A subtask is to be created for ODC purchases to include necessary materials required for completion of any of the above activities. (i.e., software maintenance; any switch or voicemail upgrade; tools; etc)~~

~~**18. Dedicated Operator Support**~~

~~The contractor is to provide dedicated labor (related to telephone service) to support the Center's primary incoming phone number (650-604-5000). This support requirement includes, but is not limited to answering customer questions as to person's or facility phone numbers, placing international calls, maintaining up to date after hours recording and other operator assisted customer requests. This position will provide support for the entire Ames Campus. The support also includes the responsibility for maintaining up to date telephone numbers for both NASA and Moffett organizations. Operators are also responsible for disseminating other operator related information to callers as appropriate. Must have working knowledge of telephone operations relating to industry practices, either from documented past experience or current on the job training plan. Hours of support are 7:00 AM to 5:00 PM Monday through Friday excluding government holidays.~~

~~**10. Maintenance of Work Areas**~~

~~The contractor is responsible for insuring the following:~~

- ~~▪ All work areas will be maintained in a neat and organized manner to help meet the goal of maintaining a safe and clean work environment~~
- ~~▪ All installations will be conducted safely and cleared of all debris, equipment and parts once a work order/repair is completed. The contractor shall be responsible for cleaning up all debris associated with his installation on a daily basis. The contractor shall vacuum all building spaces, and Network Equipment Rooms (NER) and work areas that may have been soiled by drywall dust, ceiling tile dust, or terminated cables~~
- ~~▪ All property and equipment that has been deemed unusable or is no longer required should be turned over to the property custodians for removal.~~
- ~~▪ Clean telephone cabling system components of dirt and construction debris upon completion of installation.~~
- ~~▪ Protect installed equipment and components from damage during the installation/construction period.~~

~~All work areas shall be left in the same condition as when work started; touch up scratched or marred enclosure surfaces to match original finishes.~~

~~**A2.3 Communications Cable Plant General Requirements**~~

~~The Communications Cable Plant (CCP) refers to all internal building cable infrastructure and the external communications cable plant on the federal-owned land occupied by NASA, the U.S. Navy, the California National Guard Moffett Station and NASA Research Park. This comprises~~

~~the Ames/Moffett Field campus. The contractor shall administer, design, install, rearrange, document, troubleshoot and control the CCP on the Ames/Moffett Field campus under the direction of the NASA CCP manager. The existing CCP resources shall be diligently administered in a manner to minimize costs and service problems while maximizing the capacities and capabilities. Additions, changes and rearrangements to the CCP shall be designed and installed in accordance with current telephony, video and data communications standards. The Contractor shall provide support, insight and consultation regarding the Cable Plant Business Model, Cost models, policy and procedures, industry best practices and architectural modifications, changes and exceptions. The CCP information shall be documented and stored in a hardened standard data system. NASA shall control access to, and use of, the CCP in order to maintain system integrity and maximize system capabilities.~~

~~**A2.3.1 Internal Communications Cable Plant (ICCP):**~~

~~The inside cable plant media includes fiber optic, coax and copper cables. Every cable plant standard available in the last 40 years is represented. Circuit speeds supported range from intercom (<.01 Mbps) through high speed data (>2,000 Mbps). It is used extensively to provide connectivity for all types of telecommunications systems such as voice, phone, fax, data, video, broadcast analog video, security, safety, alarms, audio, RF, imaging and instrumentation between buildings, laboratories and other research facilities.~~

~~**A2.3.2 External Communications Cable Plant (ECCP):**~~

~~NASA has responsibility for all external communications cable plant (ECCP). The external communications cable plant is a valuable government resource used to support data, video and telecommunication services for federal and civilian customers on the Ames campus. The external communications cable plant includes the supporting structures (underground conduits, manholes, pull boxes, pole lines), the copper, coaxial and optical fiber external communications cables in these conduits and the external communications cable terminals for these outside plant external communications cables (MPOE, PDF).~~

~~**A2.3.3 CCP Requirement Details**~~

~~Provide all resources necessary to document external communications cable plant (ECCP) underground structures, communications cables and operating policies for centralized support of the ECCP which supports Ames buildings and all other Moffett Field facilities and components, including those institutional facilities outside the current fence and on federal land.~~

~~Detailed requirements will include:~~

- ~~• Arrange, coordinate, administer and supervise the installation of metallic and optical external communications cables and underground conduit structures, and ensure these cables and conduits are terminated and allocated in accordance with Center approved operating policies. Discovery, documentation, trouble shooting, repair, safety inspections, and permitting as required.~~

- ~~Configuration management and positive change control for all external communications cables and conduits in all elements of the External Communications Cable Plant up to and including termination at the primary communication closet or demarcation point in each building.~~
- ~~Discovery, documentation, assessment and tracking of existing Internal/External Communications Plant (I/ECCP) capabilities and capacities as requested and as the funds are provided.~~
- ~~Consultation for all customer requests of I/ECCP services and resources. Consultation includes resources, schedule, possible definition of labor resources (in house or out-source) and costs. Consultation also includes impacts to operations, maintenance and trouble shooting.~~
- ~~Prepare permit requests as necessary, and ensure compliance with all NASA, Federal (e.g., OSHA) and State safety and environmental regulations.~~
- ~~Administer and control occupancy and use of I/ECCP conduits and manholes. Monitor and maintain the outside plant to ensure positive configuration control, compliance with safety and environmental regulations, physical security against unauthorized use, and facilitate plans to secure it.~~
- ~~Document communication manholes using digital photography, fill lists, punch lists, and AutoCAD drawings as required.~~
- ~~Maintain a centralized drawing database and cable assignment database in support of all Center programs and projects, and facilitate hardening of storage facilities and duplicates of hard and soft copy drawings, data sheets, and cable assignment records in conjunction with the institutional Documentation task.~~

~~Coordinate all project work with outside carriers. This may include the development of a project plan, detailed schedules, and final review and approval of engineering drawings to ensure compliance with prevailing codes, standards and regulations. Total NASA/PSGS costs should also be calculated for possible future reimbursement. In addition, for quality assurance purposes provide oversight and direction of the actual work as performed on NASA premises by carrier contractors. In particular ensure that the carrier contractors adhere to all prevailing health and safety procedures as established by Code Q.~~

~~A2.3.4 CCP Documentation~~

~~The contractor shall provide drafting services and documentation archives for all Code IO CCP functions; shall establish consistent standards for this documentation; shall archive/store electronic documentation in a secure standard data system; and shall establish and maintain a hard copy "Master Library" for this infrastructure.~~

~~The contractor shall provide all resources necessary to support drafting and documentation; and shall establish a hard copy “Master Library” for telecommunication drawings related to services provided by Code IO. All documents/engineering drawing should be in black and white using color only when the situation warrants it. All legends should be BICSI compliant. Exact size/dimensions should be displayed where they can provide value added. Employ digital photos where appropriate. All information displayed should be field verified for accuracy. Use old building drawings where practical to baseline from. All construction drawings should have traceability; need to be able to see the evolution of a drawing/document through its life cycle. With this capability, one could trace back to a faulty assumption that may not initially impact a system/installation until some time in the future.~~

~~Specific requirements include:~~

- ~~• Provide drafting/drawing support for all telecommunications services. Prepare AutoCAD drawings for the following services: External Cable Plant Infrastructure; Building Telephone Cable Distribution; Building Data Cable Distribution; Video/Audio Cable Plant Infrastructure; Network Engineering Diagrams; System Logical Diagrams; JT Facility Diagrams, or as specified by the Task Requester.~~
- ~~• Establish a consistent and standard drawing/documentation format and symbols.~~
- ~~• Establish and maintain a “Master Library” of current drawings of Ames telecommunication and network infrastructures. Provide hard copy of existing drawing as requested by IO.~~
- ~~• Establish back-up system for “Master Library”.~~
- ~~• Provide and maintain an Electronic Index of the drawing titles in the “Master Library”.~~
- ~~• Create new work processes related to requesting, submitting, changing and archiving Telecommunications, Data, Network, Video, Conduit, and Facility documents or drawings.~~
- ~~• Archive selected “Master Library” drawings with ARC Engineering Documentation Center in Building N213. Task Requester shall identify which drawings will be archived with EDC.~~
- ~~• Track budgets and metrics related to documentation.~~

A2.4 Network Operations

The purpose of this task is to provide staffing of the Network Operations Center (NOC) for operational support, maintenance and management of the Ames Research Center Local Area Network (ARCLAN) which includes the wired and wireless LANs, Border Router, Remote

Access Services, Firewalls, and the Ames External Interface Telecommunications Gateway (EI) which includes the Ames Internet Exchange (AIX). The task will follow the NPR7120.7 based project process as defined by the Project Management Office during the execution of any project under this task.

The task shall have processes in place for Incident Reporting, Change Management, and Configuration management.

Note: Any references to “network infrastructure” or “the network” in this TOD include both LAN and WAN components described above.

A2.4.1 Network Operations Center – Local Network Administrators (LNA)

Provide technical staffing for the Network Operations Center.

The NOC serves as the focal point for all incoming network-related issues via the Tier 1 IT Support Center (ITSC) through Remedy ARS. It functions in a Tier 2 capacity comprised of the LNA group and other network staff and is responsible for resolving network-related issues and for interfacing with the network engineers and other network operations staff with the ultimate goal of providing network support to all Ames and Moffett Field customers.

The NOC operates and maintains the Ames EI Telecommunications Gateway Facility, which includes the Ames Internet eXchange (AIX) peering points, on and off-shift to ensure continuous operation 24x7x365. It maintains a database of all customer organizations that co-locate their equipment in N254 and their personnel who are granted unescorted access into the facility. The NOC provides technical support to the AIX customers as needed for the co-location of their equipment.

The NOC is responsible for proactively monitoring the status of ARCLAN and EI in conjunction with the NMS Engineer and providing up-to-date status of any major occurrences.

The NOC also provides LNA support of customers for all catalog work to be done under Serv-I as defined in the LNA Business Model. Work performed under the LNA subtask includes, but is not limited to, the ongoing administration, maintenance, operation, repair, installation, and documentation of ARCLAN and EI. They are responsible for fabrication and installation of all necessary cabling for circuits and equipment as required by a customer job. They work with the External Communications Cable Plant (ECCP) managers to complete the provisioning of T-1 lines once the ECCP has assigned fiber pairs by configuring and installing and testing the necessary components between the frame and the customers CSU/DSU.

Additionally, LNAs provide assistance with network design, customer configurations, circuit troubleshooting, configuration management and implementing modifications to the network and network infrastructure.

The NOC performs system administration for NOC and EI systems as well as hostmaster services for the ARCLAN Domain Name System and the root name server (e.root-servers.net), including but not limited to routine activities (such as file system maintenance and management,

backups, moves/adds/changes and performance tuning), operating system installations and upgrades, installation and configuration of peripherals, building and installation of public domain or third party software applications and scripting and programming to automate routine administrative tasks.

A2.4.2 Network Engineering

The network engineers are responsible for Tier 3 NOC support for the network, network security, network adds/moves/changes, new technology analysis, and support as required for network projects and other customer work assigned to the NOC.

The engineers provide support, ranging from the external gateway Internet exchange (federal and metropolitan area) to a single local end user on the ARCLAN. Engineering support includes design and implementation of various customer network requirements which include interfaces to various customer Wide Area Networks (WANs), ARCLAN, extensions to various buildings on the Center cable plant or RF links,.

Engineering provides support and guidance for the LNAs and NMS engineers for the overall maintenance and management of the network.

A2.4.3 Network Monitoring

Provide customer support for, and operational monitoring of ARCLAN, EI, AIX and Centerwide IT services and applications used by Ames and Moffett Field staff.

The Network Monitoring System (NMS) Engineer is responsible for system administration of the NMS. This involves maintaining the NMS hardware and software configuration and assisting network personnel in the use of the NMS for monitoring and managing the network infrastructure in its operational state, managing alarm states and developing reports to report the state of the network.

The NMS engineer shall continue developing network performance metrics for experimental and test networks as they are supported through the NOC and Network Engineering. Baseline metrics and applications test metrics shall be developed. The NMS engineer shall maintain documentation of all Center bandwidth capacity and utilization on external interfaces, and design and implementation of special monitoring, analysis and display of data (e.g., payload operations center, Network Operation Center, special projects) in support of network engineering.

NMS tools and network performance metrics and graphs shall be made available via a secure web-based front end when possible. Customer requests for network performance metrics shall be made available upon request when approved by the Task Requester.

All AIX participant traffic flow shall be monitored and be available for viewing.

A2.4.4 Remote Access Services

Provide system administration and user support for two centerwide remote access services: Virtual Private Network (VPN), and the MyWeb/ service. The task also provides system administration for the RADIUS authentication servers that control access to these, and other services.

The RADIUS servers in this task will also provide authentication services for the Center's Wireless Local Area Network (WLAN), and LAN equipment. The RAS/VPN staff will participate in the testing and integration of new WLAN installations. Given the interdependencies between the WLAN, RADIUS, and VPN services, an ongoing level of engineering and user support may be required after the WLAN becomes operational.

The primary goal of the area is to provide reliable, secure, remote data communications to the center, and be able to produce reports that document the usage levels of the services.

A2.4.5 Firewalls

Provide support of the ongoing IT security activities as pertaining to internal and external networking. This includes support for new IT security development activities.

Support includes but is not limited to the following:

- Firewall incident response and troubleshooting
- Engineering analysis and support for testing and deployment of new tools/technologies (e.g. VPN, MyWeb, PKI, IPSEC, SecureNet)
- Introduction of new ARC applications and services
- Enhancing existing services
- Updating firewall hardware and/or software
- Reporting on ARC firewall logs
- Other firewall and Border related activities as needed

A2.4.6 External Interface Business Office

The External Interface (EI) Business Office operates the Ames Internet Exchange (AIX) located at the N254 External Interface Telecommunications Gateway. It consists of the Federal Internet Exchange-West (FIX-West), Metropolitan Area Exchange-West (MAE-West), Multicast Internet Exchange (MIX), Next Generation Internet Exchange West (NGIX-West), Multicast Internet Exchange Next Generation (MIXng) and Version 6 Exchange (v6X). Building N254 provides a secure, hardened facility for federal, commercial and university clients for co-locating equipment.

The AIX is a distributed exchange facility. Participant networks can currently connect from Palo Alto Internet eXchange (PAIX), Equinix, and the MCI MAE-West facility as well as locally from Ames Research Center. This metropolitan connectivity provides NREN/Columbia Project with paths to the Super Computer research network and NASA Research Park (NRP) access to network providers. Approximately 99% of all of Ames' telecommunications is supported at least in some degree by this project office and through N254. This support typically involves

extending landline and satellite communications circuits through N254.

The AIX also supports research and learning technology, educational and other special science and technology programs associated with NASA and Ames Research Center (ARC), other federal agencies point-to-point links, private commercial networks that require collaborative connections, and research with federal agencies and universities into advanced protocols, traffic management and networking switching technologies.

The EI Business Office shall:

- Provide the Task Requester with input required for updating and revising all Reimbursable Space Act Agreements (RSAA) and Non Reimbursable Space Act Agreements (NRSAA) and Memorandum of Understandings (MoU) between External Interface and participant networks.
- Provide the functional interface between the AIX and the current and potential user community to insure both stable operation and future growth.
- Provide the interface between the Ames user community and the external world for problem resolution by working through the NOC.
- Notify the Task Requester of all customer and internal systems planned for de-activation immediately upon notification from customers, or as noted internally, to support on-going facility space allocation planning.
- Facilitate the removal of all de-activated customer equipment from the facility no-to-exceed 30 days from service deactivation, or expiration of a Space Act Agreement.
- Provide support and consultation to the Ames NISN Center Representative for all WAN activities.
- Participate in technical forums and meetings in support of AIX business such as NISN Forum, North American Network Operators Group (NANOG) and DREN.

~~A2.4.7 Documentation and Configuration Management~~

~~All Network Operations documents shall be stored in a sanctioned code IO file sharing system.~~

~~The NOC shall maintain and update:~~

- ~~14. Standard Operating Procedures (SOP). SOPs shall include hazardous material instructions and be located with or near MSDS.~~
- ~~15. Documentation of all circuits add, drop, changes within EI facilities and remote Points of Presence (PoP) locations.~~
- ~~16. All circuit databases, to include local (intra campus) circuits/connections.~~
- ~~17. All cabinet elevation drawings and floor plans.~~
- ~~18. Building network diagrams~~

~~All equipment shall be incorporated into the configuration management system unless the hardware does not support the integration.~~

~~A2.4.8 Network Administration Support for Security Operations Center~~

The Security Operations Center (SOC) network consists of a single Juniper IGP device which peers with a NISN SIP router, providing L3 transit to other NASA resources and the Internet. Behind the Juniper IGP, are three /24 networks which are logically segmented into security domains through the IGP into a lab environment, analyst network, and a DMZ, where all the SOC servers are housed. The /24's are further segmented into multiple L3 broadcast domains. There are several L2 switches which connect into the Juniper IGP. These switches utilize port-security with MAC address filtering to regulate access to SOC network resources at a hardware (workstation/server) level. All devices are physically located in the N254 facility.

There are existing diagrams of this architecture, which were generated and are currently being maintained by SOC staff. There are immediate plans to incorporate an additional Juniper IGP into the SOC border architecture creating a redundant firewall system, in addition to improving peering with NISN to support more external connectivity redundancy. The intent is to have SOC staff perform the forward engineering, implementation, and appropriate documentation updates for this change. Once these changes have been made, and the Operational Readiness Review (ORR) is completed for Phase II of the SOC, routine operational support of this network will be turned over to appropriate contractor staff for ongoing support. Future design changes outside routine operational support are outside the scope of this contract, and will be addressed on a case by case basis. The scope of support is per the following specifications:

~~7x24 On-call Network Administration Support~~

- ~~• Provide 7x24 on-call support for all ARCLAN network failures~~
- ~~• Provide 30 minute remote response to the person first reporting the problem for all ARCLAN network failures~~
- ~~• If on-site ARCLAN support is required following remote troubleshooting, arrive within 2 hours.~~

~~Routine Add/Move/Change Activities:~~

Task shall provide necessary staff to perform routine configuration of Layer 2 devices utilizing agency standards and policies. In addition, contract staff will be responsible for port activations, including existing port security functionality for new workstations or servers. Due diligence in terms of insuring proper standard cabling, testing upon activation to ensure appropriate performance and security compliance must be observed. In addition, all documentation is to be updated and reviewed by the Task Requester to reflect the current architecture. Contract staff will ensure that all L2 device IOS versions are to remain current. Any activities that need to be scheduled to meet these requirements shall be coordinated through the Task Requester and SOC Operations Manager.

~~Firewall/IVE Administration:~~

Task shall provide necessary staff to support routine administration of the existing Juniper IGP firewall system and Juniper IVE SSL-VPN system, including keeping the IOS version current, and overall administration of the firewall rule set. All proposed rule changes or significant configuration changes to these systems shall be reviewed and approved by the Task Requester

and SOC Operations Manager prior to implementation. Any activities that need to be scheduled to meet these requirements shall be coordinated through the Task Requester and SOC Operations Manager. A mechanism shall be put in place to track configuration changes to the firewall rule set. The contractor shall provide support for account creation on the Juniper IVE system.

Back-ups of the critical configuration components of these systems shall be maintained on a weekly basis, and testing of the restore from back-up process and overall redundancy of these systems shall be performed, with results documented, annually.

~~Network Configuration Management and Monitoring:~~

The contract shall provide a configuration management system, which periodically records configuration changes on all Layer 2 devices, and notifies the appropriate personnel when changes are made, and what the exact configuration changes were, with the ability to track configuration changes back to the source of the person making the change.

In addition, the contract shall set up a system that actively polls all SOC Network devices with the intent of providing the following information/functionality:

- ~~• Traffic Graphing of all “critical” links (generally aggregate links)~~
- ~~• Alarming when expected capacity on a “critical” link is exceeded~~
- ~~• Alarming when a network device becomes unreachable from the Network Monitoring server~~
- ~~• Notification to appropriate staff when a network device becomes unreachable~~

~~A2.4.9 Additional Support Requirements and Projects~~

Additional support requirements and projects are performed on an “as needed” basis as required by the Task Requester for requests such as special projects, mission support, and emergency response. Special requests shall be reviewed by the Task Requester prior to start.

~~DSS Satellite Support~~

~~Provide maintenance and operations of various satellite and video equipment at the EI facility. Provide engineering services for all non-DSS satellite downlinks and all satellite uplinks located at N240, and operational and engineering support for such projects such as JASON, the Space Shuttle, and International Space Station.~~

~~Emergency Communications Center (ECC)~~

~~Provide support to the Ames Emergency Communications Center (ECC) on all issues pertaining to the provision and distribution of emergency wide area data, voice and video communications services to limited emergency preparedness and executive management level users, during outages to any of these communications technologies during a declared state of emergency by the Center Director or Center Emergency Preparedness Manager.~~

Stockroom and Logistics

The contractor will be responsible for directing the requisitioning, receipt, verification, storage, safekeeping and issuance of parts, supplies, accessories, tools and test equipment necessary to maintain a wide variety of functional areas necessary for the operation of Code IO.

The contractor will work with the customer to create and refine processes for the operation of the stock room and tool crib servicing the Data, Voice, Cable Plant and Video functional areas. The contractor will interface with technicians and Project leads in the areas of materials research, procurement, tracking and job material staging. The contractor activities will include reporting, trend analysis stock replenishment, materials tracking, maintenance, calibration, shipping and receiving, and sign in/out procedures. The contractor will also be responsible for maintaining the JTN Property database and for building professional relationships with applicable vendors.

The contractor will work with Code IO in the refinement of the Code IO Business Model for Network Operations and Communications support functions through the introduction of tracking systems and utilizing Solomon modules within the SERV-I Solomon application.

Specific requirements include:

- Maintenance of network supply cabinet
- All parts and equipment should be in a controlled environment
- Track and restock most frequently used parts based on usage
- Procurement of parts and equipment needed for customer jobs
- Storage of network test equipment for checkout
- Staging for larger projects
- Work with various network groups to identify common area for storage of parts and equipment
- Establish and maintain an inventory of required equipment spares
- Develop report on monthly usage for stocking and sparing
- Manage the checkout/in process for all Cushman's assigned to Code IO
- Manage the checkout/in process and maintenance of the contractor provided truck
- Act as Alternate Scheduler for IO N233 Conference facilities

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 407

Modification Number: 002

Task Title:	Telecommunications and Data Network Operations
Planned End Date:	September 30, 2010
Task Requester Name:	Grace DeLeon

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable	X	<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This task modification is to extend the period of the contract through September 30, 2010, and to add the requirement to accelerate the Ames Research Center Local Area Network (ARCLAN); as well as to increase the budget for Materials to purchase additional hardware enhancements for the ARCLAN project in the form of upgrading uplink connectivity for critical buildings, and enhancing redundancy for the Wireless Network.

monitoring, threat mitigation, security awareness and training, system administration and maintenance of security tools and monitoring systems, modification and testing of CIS and FDCC configurations and application scripts, and anything else related to IT security.

This task will provide technical support and systems administration support in this area.

Penetration Testing

The Ames operational security staff is responsible for conducting quarterly Penetration Tests on the Ames infrastructure. This includes dumpster diving, social engineering, vulnerability scans, phishing exercises and physical audits. The purpose of this exercise is to review the status and posture of the center's security.

The task should provide the resources in order to conduct the quarterly tests, mitigate the problems, generate a findings report and finally provide guidance and recommendations through BOF's, whitepapers, etc.

New Security Products Evaluation

As new product categories are identified, the task will investigate their potential usefulness to improve the security posture of Ames and NASA. Well defined and proven procedures for new product evaluation will be employed to provide information and guidance to Ames management regarding these new or improved technologies.

Incident Response and Forensics Function

The security operations team provides incident response and forensics capabilities for the Center. Last fiscal year the task purchased and trained on several new IR tools and developed an incident response process. This year the task should develop detailed standard operating procedures for those IR tools.

Centralized Log Server

The FISMA C&A process revealed the need to implement a centralized log server for the SecOps system. The task will select a log server solution and implement it for the SecOps system.

VPN Migration

Code IS is managing the center's migration from the legacy Cisco device to the Juniper myWeb product. The task will perform the planning, analysis, testing, and execution of the migration effort until all users are migrated over and the Cisco device is spun down.

Network Access Control

Code IS is managing the implementation of a NAC solution. Solution selection has been completed and requirements have been gathered and validated during an SRR. This fiscal year the task will complete the implementation by completing the design and implementation of the NAC pilot.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

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If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 408

Modification Number: 001

Task Title:	Ames IT Security
Planned End Date:	September 30, 2010
Task Requester Name:	Ernest Lopez

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to July 2010 and add the new requirements listed below. In addition the NAC project (PD#8) has been put on indefinite hold.

The new task requirements are:

- To support the firewall log tuning effort
- To support the remaining three PEN tests
- To update the SecOps security plan within RMS to NIST 800-53 rev3
- Tune the Juniper IDP
- Install a Snort sensor

- Install the Reconnex v8 box and tune it

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 408

Modification Number: 002

Task Title:	Ames IT Security
Planned End Date:	September 30, 2010
Task Requester Name:	Ernest Lopez

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance to September 30, 2010, to eliminate Performance Deliverables PD#14 & PD #15 for two of the penetration tests, and to add a new requirement to upgrade the Decru SecureShare system.

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION
(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

 X Initiate a new Task 409.000.2
 Modify existing Task Number

Task Title: Code IQ Special Projects

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C.1.1

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Note: This task allows for funding at the subtask level.

The overall requirement of this task is to support Code IQ special projects. The projects include PKI support and a number of Web development projects. The requirements for these two areas are described below:

PKI SUPPORT

NASA's Public Key Infrastructure (NPKI) provides services for protecting the confidentiality, integrity and authenticity of NASA's sensitive information. PKI's encryption and digital signature capabilities enable secure electronic mail and eForms, and secure desktop and web access. The NASA PKI also provides strong authentication through the issuance of PKI credentials or certificates on the PIV badge, which will help to build authentication for users, desktops, and Web service portals.

The purpose of this Task is to provide supplemental support to the following specific tasks of the NPKI project under NASA ICAM (Identity Credential and Access Management). Below is a list of services and the requirements of this Task for each.

NOCA OCSP Infrastructure Deployment

Online Certificate Status Protocol (OCSP) is a new service mandated by FIPS-201. It will be a three-tiered infrastructure. Tier 1, the OSCP Validation Authority, will be housed, maintained and operated by the U.S. Department of Treasury; Bureau of Public Debt (BPD). Tier 2, the OSCP responders, will likely be housed throughout the Agency and maintained by this Task. Tier 3, the clients, will be the responsibility of other NASA teams, such as the NCAD and Desktop teams. This Task is responsible for driving the overall architecture, and implementing the Tier 2 responders. This Task is responsible for the remotely administering the NPKI servers and OCSP Responder appliances located in other NASA centers. These include the ten OCSP responders located in ten NASA centers. The Task will continue to complete the OCSP responder deployment and Operation Readiness Review (ORR) to move OCSP infrastructure into steady states.

NPKI Project Technical Writer

The technical writer will provide documentation support for NPKI in general, such as Registration Authority operational guide, Entrust client software installation and user guide. In addition the technical writer is responsible for the pki.nasa.gov website. This website is an essential tool for communicating PKI status, policies, procedures, and help information. It is also a means to distribute software or configuration updates and Certificate Authority (CA) certificates. This Task is responsible for maintaining the content on this site, providing key information and relevant FAQs for critical events such as the Entrust client update, the Personal Identity Verification (PIV) card rollout, the HSPD-12 authentication requirement, the Badge (PIV Card), the encryption and signing cert from a by-request service to a basic-level-entitlement (BLE) using the NASA Account Management System (NAMS), desktop encryption demands, and OCSP updates.

NOCA Security Officer

The NASA Operational Certificate Authority (NOCA) Security Officer is a unique role in NOCA PKI Infrastructure. This role is defined in detail in Department of Treasury SSP Certificate Practice Statement (CPS) and is responsible for using the Entrust Security Manager Administration (SMA) application to change NOCA policies on the NOCA, based on the need of NASA PKI. It occasionally performs back up services for the Super RA as well.

WEB PROJECT SUPPORT

These projects provide the hosting, technical structure and interactivity of web sites and require various levels of technical support and interactive application development. This task is to provide account administration, web application programming and troubleshooting, HTML and XML/XSLT development, online learning, electronic commerce and database administration tasks, and outreach.

Brief Description of Duties:

- Integration of internal sites and systems with 3rd party software through APIs.
- Design and manage MySQL5 database activities.

- Perform in the role of a systems integrator.
- Assist in managing the maintenance of development, QA, and production systems.
- Assist staff in providing tiered customer support.
- Provide outreach.

Presently, the agency web projects supported by this task are:

- Nebula/NASA Cloud
- 3D Resources site
- eClips
- SCA_N (Space Communications and Navigation, formerly SpaceComm)
- Educational Spacewalk Simulation Project
- Shuttle Applications

Nebula/NASA Cloud

The Nebula project aims to create a new platform for delivery computing infrastructure and services. The project team is comprised of many resources from a variety of sources filling a variety of roles. Many of these roles, including the project management and technical leadership fall outside of this task. This task will provide support to the Nebula project manager and technical lead.

Specifically, the task will provide technical leadership and project coordination, user interface design services, engineering for Cloud Computing, system administration and configuration management, testing, technical writing support, authentication architecture integration, and some project management support.

The task must provide expertise in these areas on an as-needed basis. As this task is in support of the project manager and technical lead on the Nebula project and the Nebula project is still in its infancy, key objectives of this task are flexibility and responsiveness.

Project Coordination – Tasks:

- Support the Nebula Platform project by managing the coordination and oversight of external relationships
- Work directly with the Nebula Project Manager and Project Lead to address issues involving schedules, staffing, and communication.

Software Engineering – Tasks:

- Perform design, development and documentation activities for framework development and pilot projects within the Nebula scope
- TESS community portal web application - This task must support the direct, collaborative functionality of the TESS community portal web application, and development work to support the underlying web application framework. The task must perform design, development and documentation activities for framework development and the TESS pilot project, as required.

NASA Account Management System (NAMS) integration – Tasks:

- The task is to provide guidance on how and when Nebula should be to be integrated into the NAMS system.

System Testing – Tasks:

- Provide adequate software testing services, processes and automation as necessary, based on project needs

System Administration and Configuration Management - Tasks:

- Provide system administration, engineering and configuration management support for all systems used by Nebula project

Technical Writing – Tasks:

- Technical writing assistance as-required to support development of 7120.7 documentation

Specifically, the task will also provide User Interface design services, technical writing support, authentication architecture integration, and some project management support.

3D Resources Site

The task shall:

- Create a website in the nasa.gov portal to provide users access to 3D models and textures that are developed by NASA.
- Update the site with new resources as they become available.

eClips

The task shall:

- Develop a website inside the NASA portal to deliver educational videos and content. The website will be targeted toward teachers and students, with an emphasis on use in the classroom.
- Perform weekly maintenance on the website, publishing new videos and teacher resources (provided by NIA).
- Develop new features to improve user experience.

SCAN (Space Communications and Navigation, formerly SpaceComm)

The task shall:

- Create animations to run inside the Celestia open source environment using models provided by NASA Ames.
- Develop animation sequence allowing the user to send personalized messages to the various data recipients in the TDRSS network.
- Develop animation sequence allowing the user to send personalized messages to the various data recipients in the DSN network.
- Develop animation sequence allowing the user to send personalized messages to the various data recipients in the NEN network.

- Model Development progress and interface with Animation scripting in the run time environment with bi weekly updates to stakeholders will be facilitated by NASA Ames personnel. This will be a collaborative effort between the model developer, NASA Ames, the runtime environment scripting developer, and the NASA stakeholders in HQ and GSFC.

Educational Spacewalk Simulation Project:

SOMD's Education Department (NASA HQ) is developing an educational website focused on the use of space suits during Extra Vehicular Activity (EVA) in space. The website is a joint effort between NASA HQ, NASA MSFC and NASA JSC and will be hosted inside the NASA Portal infrastructure. NASA Ames (ARC) shall deliver the 2 simulations available for download from the web page. (The Spacesuit web site shall be delivered by Marshall (MSFC) personnel.)

This task shall:

- a. Develop and deploy an Educational Simulation Environment for STS-119 with embedded scenarios on the existing Digital Spaces Open Source Platform, to be delivered in two formats:
 - i. As a downloadable installer hosted on the NASA spacesuit website.
 - ii. As a standalone installer that can be burned on DVD/CD-ROM media.
- b. Develop the storyboard for STS-119, clarifying the proposed user experience and user interface to simulations, the proposed functionality of the simulations (e.g., different cameras, usable objects in simulation, use of discrete scenario steps/levels, use of audio etc.), educational learning experience build into simulations, and additional features to maximize attractiveness for target age group (e.g., game-like incentives to successfully complete the simulation).
- c. Provide all models for phase I and phase II in .3DS format for the NASA 3D model repository.
- d. Perform initial testing of the simulation, and ensure that, prior to release, the final installation package complies with all Federal and NASA policies, including the Federal Desktop Core Configuration (FDCC).
- e. Enhance the STS-125 application to run on Macintosh Operating Systems (Intel Mac).
- f. Develop the STS-119 application to run on both Windows and Macintosh Operating Systems (Intel Mac).
- g. Develop, document, and possibly videotape, tutorials for building virtual world models, scripting and user interfaces for NASA development team members or other information resources to create simulations using the Digital Spaces Open Source platform.
- h. Develop Digital installation and help files to be included on the DVD/CD-ROM installer.
- i. Update existing simulation scenarios based on user feedback.

Shuttle Applications

This task shall

- Support the Orbiter Project Office's SODB and Greenbook databases by performing periodic updates to these databases as well as to the code of their web interfaces.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD) MODIFICATION**

SECTION A – MODIFICATION REQUIREMENT

(This document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 409

Modification Number: 001

Task Title:	Code IQ Special Projects
Planned End Date:	July 31, 2010
Task Requester Name:	Keith Shackelford

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		<i>Complete Sections A1, A3, B1, and Signature Page</i>
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		<i>Complete Sections A1, A3, B1, B2, and Signature Page</i>
Modification Impacts Resources, Cost, and/or Deliverables	X	<i>Complete all Sections (A, B, C) and Signature Page</i>
OTHER (Please Describe)		<i>Complete all Applicable Sections and Signature Page</i>

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this ACITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until July 31, 2010, to move several projects onto this task from the start of the option year (October 1, 2009), and to support additional agency project work as they arise.

The following projects, which had been spread across multiple tasks, are being moved entirely under this task. The projects are:

- Nebula—Provide technical leadership and project coordination, user interface design services, and engineering for Cloud Computing, as well as system administration and

configuration management, testing, technical writing support and authentication architecture integration.

- SharePoint—This is all of the work in support of an agency rollout of SharePoint and does not include the work being done to support local users of the Ames instance of SharePoint.
- 3D Resources—Create website in the nasa.gov portal to provide users access to 3D models and textures developed by NASA and update the site with new resources when available.
- eClips—Develop website in the NASA portal to deliver educational videos and content, and perform weekly maintenance, publishing new videos and teacher resources (provided by NIA). Develop new features to improve user experience.
- SOC – This task is to provide system administration support to the NASA Security Operations Center.
- SCaN (a.k.a. SpaceComm)—Create animations to run inside the Celestia open source environment using models provided by NASA Ames; develop animation sequence for users to send personalized messages to recipients in the TDRSS network, the DSN network, and the NEN network; model development progress and interface with animation scripting in the runtime environment with bi-weekly updates to stakeholders.
- Station Spacewalk Game—Deliver 2 simulations for download from the web page for the SOMD Education Department (NASA HQ) website focused on the use of space suits during Extra Vehicular Activity (EVA) in space.
- Shuttle Apps/Archive—Support the Orbiter Project Office's SODB and Green book databases by performing periodic updates to these databases and their web interface code.
- EDLR (Entry, Descent, Landing Repository) – This task is to provide minimal support to the network scanner for this system.
- TIC (Trusted Internet Connection) – This task is to implement the new Trusted Internet Connections and to migrate the traffic from existing internet connections to these trusted connections.
- STI-DAA Scientific Technical Information-Document Availability Authorization: Maintain and rollout the agency-wide NF1676 system to standardize the process of authorizing the release of Scientific and Technical Information.
- LaRC Checkout - Create an Employee Checkout Application for LaRC.

For these projects, technical support, and system administration will now be performed under this task, where previously it had been split across multiple tasks. PKI work will remain entirely under this task. *NOTE: Project Management support will stay on Task 401/413*

Other projects are likely to move over to this task. The following is a list of projects under consideration:

- SBIR – Migrate development and production SBIR systems to ARC. The current inventory of the SBIR system consists of 15 separate application systems including the development and production SBIR systems. The task will need to fold the systems into the Ames Code I operational and security processes.

For each of these projects and or support areas, the task shall provide the necessary IT support. While each project has different requirements, in all, the task must provide the following IT services to the above projects and support areas:

- System administration
- IT security planning and operations
- System development
- Technology evaluation
- Outreach and communications

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 410.000.2
 Modify existing Task Number _____

Task Title: Code I Center Reimbursable Support

Planned Start Date: October 1, 2009 Planned End Date: January 31, 2010

ACITS2 SOW Reference C1.1, C1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Note: The task will be funded at the sub-task level.

This task combines reimbursable work performed within the Code I Directorate for ARC. This includes all of IT project work previously done under Task 329, which includes application and website development, integration, and maintenance as well as development and guidance for IT security plans. This task also includes the capability to host, administer, maintain, and operate computer hardware; operating systems, data bases, and IT support infrastructure components for Center customers outside of Code I which was done under Task 348. The task will focus only on ARC center projects only. All other centers from the agency and agency projects will be on task 409. This needs to be explicitly stated.

A.2.1 IT Project work for Code I customers

The objective of this task is to provide information technology (IT) services available through the ACITS2 contract to center customers outside of Code I. These customers have only occasional requirements for information technology support or prefer to obtain information technology support from Code I on a per-event basis. This capability is essential, where time is of the essence, an event requires immediate attention, there is not sufficient time to go through the Task Order Document process to obtain that support or

when the event is so small that it does not warrant the effort required to process a Task Order Document.

Through this task, Code I will act as a broker for and provider of these services and obtain reimbursement from the center customer. The initial requirements will be obtained by the Code I Customer Experience Office (CEO). The Code I Business Management Office (BMO) will determine and provide the quote for the services. Work for the Service will then be performed and managed under this task.

The basic process will be:

8. Center customer requirements are identified to Code I CEO.
9. Code I CEO reviews and forwards the requirements to the Task Requestor who will then work with the task manager to review requirements.
10. The task analyzes the requirements, interviews the customer, and provides the required estimates, factoring in existing constraints (used in metrics) to the Task Requestor.
11. Code I EAO will review the requirements to assure that the requirement is aligned with current services offered by Code I.
12. Code I BMO will receive the estimates from the Task Requestor and provide the center customer with an estimated cost.
13. If the customer accepts the terms (within the specified shelf-life of the estimates) and provides the Code I BMO with a service request (SR), the workflow continues to Step 6; otherwise, the event is cancelled.
14. Code I BMO authorizes the task to proceed with the work and requests the completion date from the task.
15. The task determines and provides the project plan, and delivery schedule to the customer and Code I BMO and CEO.
16. A new charge point will be generated for each new event; estimating of events and task management will be charged to charge point 001. Costs will be moved from the event charge point to 001 as required for administration.
17. The Code I CEO prepares the Service Level Agreement (SLA) for the customer.
18. The task completes the work and provides a report on the actual completion date and the work associated with the event (used in metrics)
19. Code I BMO and CEO notifies the customer of the final close out paperwork for the event.
20. In the case of continued operation support the Code I CEO will develop an SLA for the service(s) and will follow up on a regular basis with the customer for status on support.
21. The Code I BMO and CEO will work directly with the Task Requestor on the processes outlined above.

A.2.2 Application and Website Development, Integrations, Maintenance, Central Services Hosting and Administration Services

The goal of this task is to provide Code I with the capability to host, administer, maintain, and operate computer hardware, operating systems, databases, applications, websites, and IT support infrastructure components for Center customers outside of Code I. This task also includes development and implementation of websites, applications, databases and security plans. All requirements for this task shall be funded by customer funds. Funding for implementing this activity shall be from a full charge of costs back to the requesting customers including appropriate overhead fees. The work will also provide support for organizations to fulfill agency mandated IT requirements.

The task will use applicable IT resources, including but not limited to: hardware, systems software, utility software, networks, and monitoring systems and where appropriate recommend new tools and applications to improve support capabilities. Normal operations support will be provided from 7:00 to 18:00, and Applications and Database support will be from 8:00 to 17:00, Monday through Friday excluding Government Holidays. The contractor's technical approach should describe how off-shift support needs will be addressed when the customer has such a requirement.

Provide the following services to all computer systems as necessary to meet service level agreements negotiated with each customer:

- **Install Hardware and OS**
 - Install and configure hardware and OS systems software.
 - Leverage VM infrastructure where possible
 - Ensure existing documentation standards for hardware and system configuration are updated.
- **Operate Hardware and OS**
 - Operate the hardware and OS software that is required to support the functioning of the systems under this task.
 - Staff operations to the extent needed to provide support for batch processing schedules and printing requirements.
 - Back up systems that are maintained under this task.
- 5. **Perform maintenance and monitoring of systems software**
 - Diagnose and correct configuration problems.
 - Monitor system health.
 - Apply security patches
 - Apply patches that address or repair functional problems
 - Maintain vendor agreements for hardware and software maintenance
- a. **Perform System Upgrades**
 - Install and configure systems software upgrades.
 - Ensure all associated elements (OS, Services, Databases, Data Storage systems, backups, and peripherals) are configured to support upgrades.
 - Ensure that all like systems are at the same OS version and patch level where possible. Differences must be documented and approved by the Task Requester.
- **Follow IT Security guidelines**
 - Maintain system security at all levels required and pursuant to NASA requirements.

- Ensure that all systems are kept at current security patch level for that particular platform and OS version.
- **Coordinate and act as liaison to ensure effective, secure, and efficient operations**
 - Coordinate with facilities staff for power management.
 - Coordinate with security staff for security prevention effort, alerts, incidents, training, and monitoring.
 - Coordinate with network staff for data communications.
 - Coordinate with applications managers and technical staff; follow established procedures where available and/or required.
 - Coordinate with other tasks, as a service provider, to ensure that all projects and tasks are supported in terms of capacity, schedule, and support.
- 1. **Services Support**
 - Provide support for the websites, applications, and services that operate on top of the OS level.
- **Capacity Planning**
 - Perform capacity planning to ensure that Code I has necessary computer resources available to accomplish known or predictable missions.
 - Respond to formal requests to size support requirements for expansion and scaling.
- **Rack Management**
 - Provide support for managing the physical media used to support the systems identified above.
 - Design, create, and document computer operations bays layout, and racks.
- **Downtime Planning**
 - In the event an activity needs to take place after hours the contractor is required to request approval, minimum of 1 week if possible, prior to the requested date and time.
 - The Task Requester will provide written authorization to proceed and note any issues that need to be addressed.
- **Access Control**
 - Maintain a system and process to support and document the addition, modifications, and deletions of access at the following levels: Root Access and system level passwords, system administration, technical staff, and end user.
- **Agency Mandated IT Requirements**
 - Provide support for organizations to meet mandated Agency IT requirements.
- **System Security Plans**
 - Provide support for organizations to meet mandated Agency security plan requirements.
- **Application and Website Development, Implementation and Ongoing Support**
 - Provide resources to analyze, and document requirements.
 - Design, develop, test and implement applications and/or websites, per customer requirements.
 - Provide ongoing support to maintain the application or website as outlined in the original agreement
 - Enhancements require written authorization from the Task Requester.

- **Database Support**

- Install, maintain, and administer data base management systems for external organization customers
- Create and implementation database per customer requirements
- Provide backup, security, account, and data dictionary administration per customer requirements
- Monitor system health.
- Predict and/or diagnose and correct operation and configuration problems

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 410

Modification Number: 001

Task Title:	Code I Center Reimbursable Support
Planned End Date:	July 31, 2010
Task Requester Name:	Susan Levine

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until July 31, 2010 and to remove the STI-DAA Phase 2 activity, which is being moved to Task 409.

AMES - Consolidated Information Technology Services 2 (ACITS2) CONTRACT (NNA08AF13C) TASK ORDER DOCUMENT (TOD)

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – MODIFICATION REQUIREMENT

(This Document is used for Modifications to existing ACITS2 Tasks.)

A.1 GENERAL TASK MODIFICATION INFORMATION

Task Number: 410

Modification Number: 002

Task Title:	Code I Center Reimbursable Support
Planned End Date:	November 30, 2010
Task Requester Name:	Susan Levine

(Planned End Date is required if modification impacts original planned end date. Note: Planned End Date cannot exceed Contract Option Period End Date)

A.2 GENERAL MODIFICATION TYPE (Please mark an X in all that apply)

Administrative Change – No Cost, Resource or Deliverable Impact		Complete Sections A1, A3, B1, and Signature Page
Technical Requirements Clarification – No Impact to Resources, Cost, or Deliverables		Complete Sections A1, A3, B1, and Signature Page
Administrative Change or Clarification for Metric Distribution, ODC or Deliverable		Complete Sections A1, A3, B1, B2, and Signature Page
Modification Impacts Resources, Cost, and/or Deliverables	X	Complete all Sections (A, B, C) and Signature Page
OTHER (Please Describe)		Complete all Applicable Sections and Signature Page

(Any Government Revisions in Funding require corresponding revisions and/or explanations to scope)

A.3 PURPOSE AND DESCRIPTION OF MODIFICATION

(Please describe in specific terms the modification required for this A-CITS2 Task. This section is completed by the Task Requester.)

This modification is to extend the period of performance until November 30, 2010. There is currently one subtask, 019 RAMS2 Support, that is funded with non-severable funds and as such it is the only subtask that will be extended until November 30, 2010. All other subtasks are funded with severable funds and are only extended until September 30, 2010.

The overall approach to this task must provide for the daily operation, maintenance, documentation, scheduling, and status reporting of institutional video/audio services and projects. Prompt, clear and consistent communication is required to insure that all components of these systems are functioning optimally, and within the scope of NASA Ames Research Center's expectations.

The approach to the Task must emphasize the importance of having personnel available in the EVG/VCC facility during core business hours. It is also imperative that scheduled events, projects, and activities are completed on or before the agreed upon date and within the agreed upon costs.

Further, the approach to the Task must recognize the importance of configuration control and management, and continuous review and improvement to processes and procedures as key to managing performance risk and averting or correcting performance deficiencies efficiently. Workspaces, office spaces, and work activities must be consistent with professional practices and Ames Health & Safety guidelines.

As government owned and provisioned infrastructures and services, it is stressed that all proposed changes under the Task to facilities, systems, services, and infrastructures must be presented, in advance of execution, for formal configuration management review and approval of the Task Requestor prior to actual execution with the possible exception of emergency, short term, changes deemed essential to meet immediate operational imperatives that could not otherwise be reviewed in advance with the Government. Exceptions will require a formal incident review and configuration management review for appropriateness and change concurrence of the Task Requestor.

A.2.1.1 General Performance Guidelines and Standards

All work shall be performed to specification and in a neat and workmanlike manner, complying with all applicable codes, regulations, standards, independent lab specifications and the recommended manufacturer installation practices as identified and clarified with specific policies, procedures, and practices defined in Video/Audio Networks and Systems Engineering (VANSEG) operational guidelines and documents based on accepted and appropriate industry and Government regulations, standards, and practices (See references).

Note: Where there is any conflict between specifications, standards, regulations or codes between VANSEG requirements and other general industry standards or Government regulations, an examination of the conflict will be performed by the Task Requestor, in conjunction with the Task Manager, and a final determination will be provided by the Task Requestor with concurrence of the COTR as required.

References:

- Codes
- NESC
- NEC
- UBC

Regulations

- NTIA
- FCC
- PUC
- OSHA

Standards

- EIA/TIA
- IEEE
- NEMA
- ANSI
- NECA

Independent Labs

- UL

References

- BICSI Manual
- AT&T Engineering Handbook
- Bellcore
- Manufactures Installation Practices for installed equipment
- National Electrical Installation Standards

All documents, processes, and documentation pertaining to the Task and supported Task activities and systems are to be maintained and updated for accuracy regularly and made available for access and reference local to the area of usage, as appropriate, and, especially for documents in electronic form, also available on a centralized, Code IO documentation server or share with suitable read/write access controls and storage capacity.

Baseline and working “red line” sets of all existing documentation, processes, drawings, and Standard Operating Procedures (SOP’s) required within the scope of performance of this task are essential and are to be regularly maintained and updated for baseline and “red line” accuracy. Modifications to the “red line” sets are to be done promptly after a change, addition, maintenance, or modification has been executed that affects the current process or configuration documentation. Baseline drawings and SOP’s should be updated from the “red line” information annually or as the amount of changes dictate.

All work areas, tooling, equipment, and systems will be maintained in a neat and organized manner to help meet the goal of maintaining a safe and clean work environment. This includes the inside and outside of government provided vehicles that may be utilized by the support staff.

All work will be conducted safely and work sites will be cleared of all debris, unnecessary equipment, materials, and parts once the work is completed.

Staff members are required to possess a valid California Driver's license at all times, be able to support lifting the maximum unassisted weight allowed by OSHA regulations, work on ladders and scaffolding, work on rooftops, and other difficult or confined areas both above and below ground.

Staff may be required to, upon on-site certification, operate man lift's, forklifts, and other lifting and transport aids in support of relocating, installing, and maintaining resources, working on antenna systems, towers, and building interiors and exteriors.

Staff members may be required to, upon certification, access confined spaces, underground signal vaults, and building areas that may contain lead, asbestos, or other hazardous materials utilizing approved methods in support of inspecting, installing, certifying, modifying, or maintaining video/audio cabling and related system components.

A.2.1.2 VIDEO SERVICES & FACILITIES OPERATIONS & MAINTENANCE

Support in this area shall provide for the configuration, operation, testing, troubleshooting, documentation, status reporting, and maintenance of equipment, records, information resources, facilities, processes, and capabilities necessary for the proper configuration, daily operation, and maintenance of dedicated, Ames, and Moffett Field wide video, audio, control, collaboration, and intercom distribution systems, infrastructures, and related Center coordinated operations, facilities, and services.

Typical, but not comprehensive, of these systems, infrastructures, services, and related Center coordinated operations and maintenance services and activities are:

- Ames specific video/audio gateway, distribution infrastructure, & headend capabilities.
- Analog, digital, & point-to-point dedicated video, audio, control, collaboration, and intercom infrastructures, interfaces, & headends including Agency provided DTV and external intercom loop interface equipment.
- Video Control Center (VCC) capabilities, functions, services, & facilities
- External Video Gateway (EVG) capabilities, functions, services, & facilities.
- Digital & Desktop Video Services (DV) capabilities, functions, services, & facilities.
- Moffett-wide dedicated & specialized video, audio, control, and intercom distribution systems & infrastructures.
- Digital Satellite Systems (DSS), commercial satellite, & similar video/audio communication equipment & services.
- Commercial television & private cable television (CATV) equipment, services, & franchises through appropriate, and Government approved, mechanisms

- Meeting and multi-media collaboration facility scheduled and on-call room operations, operator support, and system maintenance.

Support shall include scheduling, operation, documentation, status reporting, information resources management, processes, and maintenance for the equipment, facilities, and resources comprising the Video Control Center (VCC)/External Video Gateway (EVG) switching, signal processing, and gateway complex located at building N240 and all ancillary equipment, capabilities, programming, feeds, antennas, services, and headends passing through, or interfacing with, the VCC/EVG including the Center's dedicated video/audio cabled connectivity, commercial services (DSS, CATV, off-air, microwave, etc.), and local video distribution infrastructure collectively referred to as "VidNet"; VIDEO NETWORK.

Associated baseline process, SOP, drawing, and document sets are to be formally updated and delivered to the Task Requester for acceptance as permanent baseline documents and drawings, and to become the basis for subsequent working red line sets if a significant system change is made that could affect the accuracy of this documentation.

Existing documents typical, but not exclusive, of the type of baseline documents referenced for maintenance include:

- N240 EVG/VCC (AKA VCC) Documentation Drawing & Wiring List (Sony)
- N240 EVG/VCC Video Control Center Documentation & Drawing Sets (DSI)
 - VANSEG (AKA Video Control Center) Standard Operating Procedures
 - N240 EVG/VCC Electrical Power & Grounding Systems
 - N240 EVG Antenna Systems
 - N240 EVG Roof Conveyance System
 - N240 EVG Direct Satellite System
 - N240 EVG/VCC Crestron Control System
- VidNet Broadband Network Drawing Set (NASA)
- Ames DTV Integration Project Drawings (NASA)
- N240/218-220 Electrical Panel Schedules (NASA)
 - N240/220 Intercom Demarcation Documentation (NASA)

Support in this area shall further include identification, coordination, monitoring, reporting, and verification of infrastructure-wide service locations, signals, signal levels, and content as prescribed and approved by the Task Requester.

Existing documents typical, but not exclusive, of the type of baseline documentation and performance logs referenced for reporting include:

- VidNet Broadband Network Subscriber List (NASA)
- VidNet Video Modulator Status Report (NASA)
- VidNet Amplifier Set-up & Sweeps (NASA)
- VidNet Power Supply Maintenance Log (NASA)
- VidNet Problem Areas & Recommendations (NASA)
 - VANSEG Equipment Calibration Schedule & Status List (NASA)

- Center Meeting & Collaboration Facility Location & Capabilities Listing (NASA)

Coordination with customers, operators, and schedulers of audio/video sources, resources, and events, including material entering and exiting the Center's Video Control Center (VCC)/External Video Gateway (EVG), MultiPoint Control Unit (MCU), Video Teleconferencing System (ViTS), Collaborative Facilities, Main Auditorium, Meeting/Conference Center, Visitor Center, and similar auxiliary facilities and services, will be routinely required and off-shift support may also be required for some of these events.

Support shall also include coordination, establishment, documentation, and maintenance of proper paths, links, signals, configurations, processes, and status information utilizing the Center's capabilities and infrastructures in conjunction and coordination with the Center's External Interface, Cable Plant, Network Operations, IT Security, and IT Support Center functions, capabilities, and operating guidelines to meet on-site and off-site requirements for video, audio, control, and intercom services, signal routing, and distribution.

Support during other than normal business hours may be required to support special events, emergencies, or other unique requirements.

Support shall also require engineering, documentation, repair, and maintenance of equipment, circuits, and systems, down to the component level at times, as may be required to maintain crucial services especially during critical events, emergencies, and disasters.

Equipment evaluation and procurement support will be required as well as installation of appropriate equipment hardware, firmware, and software upgrades or modifications that may become available or be required for proper operation, upgrade, or maintenance of facilities, capabilities, and resources.

A2.2 Live Communications

This task shall provide for support and services in the Live Communications area including but not limited to Telephone Switch Operations/Maintenance, Voicemail Operations/ Maintenance, Customer pre-fielding support and installations, Cable Research, Operator Support, management/update of various Voice Systems databases, and support of a Voice over IP (VoIP) deployment.

Voice over IP is an active, Government run project with the eventual goal of implementing a Voice over IP solution across the entire center. For the period of this contract, the contractor is expected to provide support in the area of Add/Move/Changes associated with multiple pilots, input into product selection, and assistance for testing and technical implementation of a Voice over IP solution for the campus.

Upgrades, repairs, and new installations of or to voice systems hardware and software are to be performed as needed. Upgrades, enhancements, and new installations to the voice systems hardware and software must be reported to and approved by the Task Requester prior to implementation and/or procurement. Also, considerations for upgrades and enhancements to voice systems hardware or software must be reported to the Task Requester prior to expending

more than a cursory level of effort. Changes in processes and procedures are to be presented to and approved by the Task Requester prior to implementation.

Adequate inventory levels are to be maintained and spare materials are to be returned to stock as appropriate. The transportation, removal, construction, wiring, termination, inspection, etc. of all work performed under this task is to be accomplished according to best industry performance practices and safety standards.

A2.2.1 DETAILED REQUIREMENTS

19. Switch Maintenance

The contractor is to provide warranty of the Nortel SL-100 telephone switch by a Nortel authorized warranty contractor (current vendor is TRCA) contractor to provide the maintenance and administration for the Nortel SL-100 by certified, experienced technician. Support includes Help/Repair desk support, Emergency Technical Assistance Service (ETAS), the Repair and the Return of Switch defective equipment, an in house inventory/supply of critical cards and replacement parts for the SL-100 (per Nortel), and 24/7 Remote System Monitoring. On-call support is required. Any potential service effecting work requiring down time to the NASA campus is to be performed off-hours and directly coordinated with the Task Requester. Overtime support is required for non-switch maintenance facility requirements.

All staff supporting the switch maintenance activity must have direct experience with the Nortel SL-100 digital telephone system, have current Nortel SL-100 certified training, and have a current Nortel SL-100 Maintenance Certifications.

20. Voicemail Maintenance

The contractor is to provide a maintenance contract for “on-call” support for the existing Voicemail. No on-site staff will be required. Contractor should be prepared to explore enhancing the voice-mail mail system with an Automatic Call Director (ADC) system to reduce operational costs and maintenance costs if requested.

21. Dedicated Administrative Support

The contractor is to provide dedicated, administrative staff to support the following activities and services:

- Remedy Ticket Processing
- Billing/invoice preparation
- CAIRS data management
- Voicemail Administration
- Support/Help Desk
- Calling Card Administration
- Central Fax Service
- Telident 911 system support.

This activity will be responsible for assuring the timely renewal of the CAIRS and Telident maintenance contracts. At this time, the Telident 911 system is reaching End of Life, and the

vendor must be consulted to upgrade the hardware and migrate the existing support contract to the new hardware.

The following activities are to be performed from the dedicated staffing pool that also support the SERVI, chargeback subtasks relating to telephone Moves, Adds and Changes (MACs), maintenance, new installations and repair service for the Moffett Agency telephone support.

22. Dedicated Pre-fielding Support

The contractor is to provide dedicated labor (related to telephone service) to verify customer requirements; provide user education; prepare work order documentation; update floor plans; provide quality control related work; and perform disconnects. Must have working knowledge of telephone installations relating to industry standards and practices, either from documented past experience or current on the job-training plan.

23. Dedicated Cable Research Support

The contractor is to provide dedicated labor to verify cable pair records in CAIRS; identify and document copper cable paths for non-PBX type services (special circuits i.e., alarms, LEC, CLEC other services); keep communications closets clean. The contractor is to provide for the removal, construction, wiring, labeling, testing, termination, the coordination of transporting materials, and inspection of all work as required. Staff must have working knowledge of telephone installations relating to industry practices from documented past experience and maintain current certifications.

24. Dedicated Repair

The contractor is to provide the most effective method to perform telephone (instrument) repair services.

25. Dedicated Misc. Labor

A subtask is to be created for misc. meetings, training functions, and activities not easily fitting into other dedicated tasks.

26. Misc. Material

A subtask is to be created for ODC purchases to include necessary materials required for completion of any of the above activities. (i.e., software maintenance; any switch or voicemail upgrade; tools; etc)

27. Dedicated Operator Support

The contractor is to provide dedicated labor (related to telephone service) to support the Center's primary incoming phone number (650-604-5000). This support requirement includes, but is not limited to answering customer questions as to person's or facility phone numbers, placing international calls, maintaining up to date after hours recording and other operator assisted customer requests. This position will provide support for the entire Ames Campus. The support also includes the responsibility for maintaining up to date telephone numbers for both NASA and Moffett organizations. Operators are also responsible for disseminating other operator related information to callers as appropriate. Must have working

knowledge of telephone operations relating to industry practices, either from documented past experience or current on the job-training plan. Hours of support are 7:00 AM to 5:00 PM Monday through Friday excluding government holidays.

10. Maintenance of Work Areas

The contractor is responsible for insuring the following:

- All work areas will be maintained in a neat and organized manner to help meet the goal of maintaining a safe and clean work environment
- All installations will be conducted safely and cleared of all debris, equipment and parts once a work order/repair is completed. The contractor shall be responsible for cleaning up all debris associated with his installation on a daily basis. The contractor shall vacuum all building spaces, and Network Equipment Rooms (NER) and work areas that may have been soiled by drywall dust, ceiling tile dust, or terminated cables
- All property and equipment that has been deemed unusable or is no longer required should be turned over to the property custodians for removal.
- Clean telephone cabling system components of dirt and construction debris upon completion of installation.
- Protect installed equipment and components from damage during the installation/construction period.

All work areas shall be left in the same condition as when work started; touch-up scratched or marred enclosure surfaces to match original finishes.

A2.3 Communications Cable Plant General Requirements

The Communications Cable Plant (CCP) refers to all internal building cable infrastructure and the external communications cable plant on the federal-owned land occupied by NASA, the U.S. Navy, the California National Guard Moffett Station and NASA Research Park. This comprises the Ames/Moffett Field campus. The contractor shall administer, design, install, rearrange, document, troubleshoot and control the CCP on the Ames/Moffett Field campus under the direction of the NASA CCP manager. The existing CCP resources shall be diligently administered in a manner to minimize costs and service problems while maximizing the capacities and capabilities. Additions, changes and rearrangements to the CCP shall be designed and installed in accordance with current telephony, video and data communications standards. The Contractor shall provide support, insight and consultation regarding the Cable Plant Business Model, Cost models, policy and procedures, industry best practices and architectural modifications, changes and exceptions. The CCP information shall be documented and stored in a hardened standard data system. NASA shall control access to, and use of, the CCP in order to maintain system integrity and maximize system capabilities.

A2.3.1 Internal Communications Cable Plant (ICCP):

The inside cable plant media includes fiber optic, coax and copper cables. Every cable plant standard available in the last 40 years is represented. Circuit speeds supported range from intercom (<.01 Mbps) through high speed data (>2,000 Mbps). It is used extensively to provide connectivity for all types of telecommunications systems such as voice, phone, fax, data, video, broadcast analog video, security, safety, alarms, audio, RF, imaging and instrumentation between buildings, laboratories and other research facilities.

A2.3.2 External Communications Cable Plant (ECCP):

NASA has responsibility for all external communications cable plant (ECCP). The external communications cable plant is a valuable government resource used to support data, video and telecommunication services for federal and civilian customers on the Ames campus. The external communications cable plant includes the supporting structures (underground conduits, manholes, pull boxes, pole lines), the copper, coaxial and optical fiber external communications cables in these conduits and the external communications cable terminals for these outside plant external communications cables (MPOE, PDF).

A2.3.3 CCP Requirement Details

Provide all resources necessary to document external communications cable plant (ECCP) underground structures, communications cables and operating policies for centralized support of the ECCP which supports Ames buildings and all other Moffett Field facilities and components, including those institutional facilities outside the current fence and on federal land.

Detailed requirements will include:

- Arrange, coordinate, administer and supervise the installation of metallic and optical external communications cables and underground conduit structures, and ensure these cables and conduits are terminated and allocated in accordance with Center approved operating policies. Discovery, documentation, trouble-shooting, repair, safety inspections, and permitting as required.
- Configuration management and positive change control for all external communications cables and conduits in all elements of the External Communications Cable Plant up to and including termination at the primary communication closet or demarcation point in each building.
- Discovery, documentation, assessment and tracking of existing Internal/External Communications Plant (I/ECCP) capabilities and capacities as requested and as the funds are provided.
- Consultation for all customer requests of I/ECCP services and resources. Consultation includes resources, schedule, possible definition of labor resources (in-house or out-source) and costs. Consultation also includes impacts to operations, maintenance and trouble-shooting.

- Prepare permit requests as necessary, and ensure compliance with all NASA, Federal (e.g., OSHA) and State safety and environmental regulations.
- Administer and control occupancy and use of I/ECCP conduits and manholes. Monitor and maintain the outside plant to ensure positive configuration control, compliance with safety and environmental regulations, physical security against unauthorized use, and facilitate plans to secure it.
- Document communication manholes using digital photography, fill lists, punch lists, and AutoCAD drawings as required.
- Maintain a centralized drawing database and cable assignment database in support of all Center programs and projects, and facilitate hardening of storage facilities and duplicates of hard and soft copy drawings, data sheets, and cable assignment records in conjunction with the institutional Documentation task.

Coordinate all project work with outside carriers. This may include the development of a project plan, detailed schedules, and final review and approval of engineering drawings to ensure compliance with prevailing, codes, standards and regulations. Total NASA/PSGS costs should also be calculated for possible future reimbursement. In addition, for quality assurance purposes provide oversight and direction of the actual work as performed on NASA premises by carrier contractors. In particular ensure that the carrier contractors adhere to all prevailing health and safety procedures as established by Code Q.

A2.3.4 CCP Documentation

The contractor shall provide drafting services and documentation archives for all Code IO CCP functions; shall establish consistent standards for this documentation; shall archive/store electronic documentation in a secure standard data system; and shall establish and maintain a hard-copy “Master Library” for this infrastructure.

The contractor shall provide all resources necessary to support drafting and documentation; and shall establish a hard copy “Master Library” for telecommunication drawings related to services provided by Code IO. All documents/engineering drawing should be in black and white using color only when the situation warrants it. All legends should be BICSI compliant. Exact size/dimensions should be displayed where they can provide value added. Employ digital photos where appropriate. All information displayed should be field verified for accuracy. Use old building drawings where practical to baseline from. All construction drawings should have traceability; need to be able to see the evolution of a drawing/document through its life cycle. With this capability, one could trace back to a faulty assumption that may not initially impact a system/installation until some time in the future.

Specific requirements include:

- Provide drafting/drawing support for all telecommunications services. Prepare AutoCAD drawings for the following services: External Cable Plant Infrastructure;

Building Telephone Cable Distribution; Building Data Cable Distribution; Video/Audio Cable Plant Infrastructure; Network Engineering Diagrams; System Logical Diagrams; JT Facility Diagrams, or as specified by the Task Requester.

- Establish a consistent and standard drawing/documentation format and symbols.
- Establish and maintain a “Master Library” of current drawings of Ames telecommunication and network infrastructures. Provide hard copy of existing drawing as requested by IO.
- Establish back-up system for “Master Library”.
- Provide and maintain an Electronic Index of the drawing titles in the “Master Library”.
- Create new work processes related to requesting, submitting, changing and archiving Telecommunications, Data, Network, Video, Conduit, and Facility documents or drawings.
- Archive selected “Master Library” drawings with ARC Engineering Documentation Center in Building N213. Task Requester shall identify which drawings will be archived with EDC.
- Track budgets and metrics related to documentation.

A2.4 Additional Support Requirements and Projects

Additional support requirements and projects are performed on an “as needed” basis as required by the Task Requester for requests such as special projects, mission support, and emergency response. Special requests shall be reviewed by the Task Requester prior to start.

DSS Satellite Support

Provide maintenance and operations of various satellite and video equipment at the EI facility. Provide engineering services for all non-DSS satellite downlinks and all satellite uplinks located at N240, and operational and engineering support for such projects such as JASON, the Space Shuttle, and International Space Station.

Emergency Communications Center (ECC)

Provide support to the Ames Emergency Communications Center (ECC) on all issues pertaining to the provision and distribution of emergency wide-area data, voice and video communications services to limited emergency preparedness and executive management level users, during outages to any of these communications technologies during a declared state-of-emergency by the Center Director or Center Emergency Preparedness Manager.

Stockroom and Logistics

The contractor will be responsible for directing the requisitioning, receipt, verification, storage, safekeeping and issuance of parts, supplies, accessories, tools and test equipment necessary to maintain a wide variety of functional areas necessary for the operation of Code IO.

The contractor will work with the customer to create and refine processes for the operation of the stock room and tool crib servicing the Data, Voice, Cable Plant and Video functional areas. The contractor will interface with technicians and Project leads in the areas of materials research, procurement, tracking and job material staging. The contractor activities will include reporting, trend analysis stock replenishment, materials tracking, maintenance, calibration, shipping and receiving, and sign in/out procedures. The contractor will also be responsible for maintaining the JTN Property database and for building professional relationships with applicable vendors.

The contractor will work with Code IO in the refinement of the Code IO Business Model for Network Operations and Communications support functions through the introduction of tracking systems and utilizing Solomon modules within the SERV-I Solomon application.

Specific requirements include:

- Maintenance of network supply cabinet
- All parts and equipment should be in a controlled environment
- Track and restock most frequently used parts based on usage
- Procurement of parts and equipment needed for customer jobs
- Storage of network test equipment for checkout
- Staging for larger projects
- Work with various network groups to identify common area for storage of parts and equipment
- Establish and maintain an inventory of required equipment spares
- Develop report on monthly usage for stocking and sparing
- Manage the checkout/in process for all Cushman's assigned to Code IO
- Manage the checkout/in process and maintenance of the contractor provided truck
- Act as Alternate Scheduler for IO N233 Conference facilities

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2

accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems
- 36 CFR 1194.22 Web-based intranet and internet information and applications
- 36 CFR 1194.23 Telecommunications products
- 36 CFR 1194.24 Video and multimedia products
- 36 CFR 1194.25 Self contained, closed products
- 36 CFR 1194.26 Desktop and portable computers
- 36 CFR 1194.31 Functional performance criteria
- 36 CFR 1194.41 Information, documentation, and support

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 413.000.2
 Modify existing Task Number _____

Task Title: Code I PMO Set up and Operations

Planned Start Date: February 1, 2010 Planned End Date: July 31, 2010

ACITS2 SOW Reference C.1.1, C.1.2, C.1.3, C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

Note: This task allows for funding at the subtask level.

The goal of this task is to provide Project Management Office (PMO) support and expertise defining, developing and supporting a new IT Directorate Code I PMO.

The Project Management Office is responsible for developing and maintaining project management methodology for effective program and project execution. They are responsible for developing project management related policies, procedures, templates, and tools. The office also manages and tracks project portfolios to ensure they are properly coordinated and are being run effectively. Results are to be reported to other segments of the organization, such as the Business Development Office. The Project Management Office is responsible for providing: project management, IT project portfolio management and reporting, project consulting, requirements management, Project Management support for application and infrastructure development and integration. Other functions fundamental to project successes may fall within this office's purview.

The task will incorporate training for project managers to be able to create & update project schedules using the Microsoft Project server. The task will also provide advanced training for Project Managers to enable them to do all of the following: create a new project from an Enterprise template, create a Work Breakdown Structure (WBS) in MS Project, enter milestones

and tasks for the project, be able to assign resources to tasks, know how to publish a project, be able to baseline a project, be able to enter and manage risks & issues, be able to tie risks & issues to the project schedule, be able to manage project deliverables and understand the Project Cache & know how to save projects. The task will provide consultation to the PMO office to determine process and infrastructure requirements to support other NASA centers utilizing our enterprise project platform. Manage a project to support pilot with one other center.

The responsibilities of the Project Management Office include, but are not limited to, the following areas:

- Directorate Level Project Integration
- Business Requirements Definition
- Project Initiation and Scoping
- Schedule and Resource Impact Analysis
- Implementation Planning and Execution
- Risk Management and Monitoring
- Project Manager Oversight
- MS Project Server Configuration
- MS Project Schedule standards

In addition the Project Management Office also...

- Provides project managers to manage key Code I projects. The portfolio of projects managed under this task varies.
- Provides mentorship to the PMO Intern
- Support the Office Integration initiative to coordinate interfaces and processes with the BMO, EAO, GPO, CEO.
- Support the workflow automation of 7120.7 project lifecycle review/approval process
- Support the PMO SharePoint site content development

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Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- **Property Assignments**
- **Property Location**
- **Unused equipment**

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- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

A.2.1 SOC Windows System Administration

Provide Windows system administration for the Incident Management System (IMS) and the SOC analysts' workstations. This task shall support operation, maintenance and administration of the hardware, operating systems (OS), MS SQL database, Windows IIS for these systems.

Specifically, the task will provide the following system support:

Web Service Administration and DBA Support

- Updates and maintenance of the MS IIS and MS SQL instances as required for the Incident Management System.
- Required and routine maintenance is performed
- Database and web patches and upgrades are carried out
- Web Server and DBA Accounts are managed
- File systems are managed

System Support: This task shall maintain, manage and administer the IIS front end and MS SQL back end servers machines used to provide the Incident Management System (IMS). This critical service provides management of incidents across the Agency. The task shall also manage all security-related functions of the servers. The following services will be provided:

- **Operate and Maintain Hardware, OS, databases, and other system software**
 - Ensure the existing documentation standards for hardware and system configuration are updated.
 - Monitor system health.
 - Diagnose and correct system problems.
 - Coordinate resolution of any hardware repairs or software issues with vendors.
- b. Upgrades**
 - Install and configure systems software upgrades.
- **Security**
 - Maintain system security at all levels required and pursuant to NASA requirements.
 - Ensure all systems are kept at current security patch level for the particular platform and OS version.
- **System monitoring and backups**
 - Monitor systems via the Code I monitor for any failures or issues
 - Monitoring will include both the health of the server and integrity of the data
 - Back up the systems and databases
- **Downtime Planning**
 - In the event a downtime activity needs to take place, the contractor is required to request approval prior to the requested date and time.

- The Task Requester will provide written authorization to proceed and note any issues needing to be addressed.
- **System Access Control**
- Maintain a system and process to support and document the addition, modifications, and deletions of access at the following levels: Root Access and system level passwords, system administration, technical staff, and end user.

Analyst Support: This task shall maintain and administer the Windows Vista machines of the IMS Analysts using the Incident Management System. These workstations are dedicated to the IMS function and should remain standardized and relatively static. During the hours of support, the contractor is required to provide the technical and organizational skill mix required to support the users of the computer applications. All responses to users must be traceable to a NASA IT Customer Care Center Trouble Ticket at the Tier 2 and Tier 3 level.

A.2.2 Standard Network Administration Support

The Security Operations Center (SOC) network consists of a single Juniper IGP device which peers with a NISN SIP router, providing L3 transit to other NASA resources and the Internet. Behind the Juniper IGP, are three /24 networks which are logically segmented into security domains through the IGP into a lab environment, analyst network, and a DMZ, where all the SOC servers are housed. The /24's are further segmented into multiple L3 broadcast domains. There are several L2 switches with connections into the Juniper IGP. These switches utilize port-security with MAC address filtering to regulate access to SOC network resources at a hardware (workstation/server) level. All devices are physically located in the N254 facility.

There are existing diagrams of this architecture, which were generated and are currently being maintained by SOC staff. There are immediate plans to incorporate an additional Juniper IGP into the SOC border architecture creating a redundant firewall system, in addition to improving peering with NISN to support more external connectivity redundancy. The intent is to have SOC staff perform the forward engineering, implementation, and appropriate documentation updates for this change. Once these changes have been made, and the Operational Readiness Review (ORR) is completed for Phase II of the SOC, routine operational support of this network will be turned over to appropriate contractor staff for ongoing support. Future design changes outside routine operational support are outside the scope of this contract, and will be addressed on a case-by-case basis. The scope of support is per the following specifications:

- Routine Add/Move/Change Activities:

Task shall provide necessary staff to perform routine configuration of Layer 2 devices utilizing agency standards and policies. In addition, contract staff will be responsible for port activations, including existing port-security functionality for new workstations or servers. Due-diligence in terms of insuring proper standard cabling, testing upon activation to ensure appropriate performance and security compliance must be observed. In addition, all documentation is to be updated and reviewed by the Task Requester to reflect the current architecture. Contract staff will ensure that all L2 device IOS versions are to remain current. Any activities that need to be

scheduled to meet these requirements shall be coordinated through the Task Requester and SOC Operations Manager.

- Firewall/IVE Administration:

Task shall provide necessary staff to support routine administration of the existing Juniper IGP firewall system and Juniper IVE SSL-VPN system, including keeping the IOS version current, and overall administration of the firewall rule set. All proposed rule changes or significant configuration changes to these systems shall be reviewed and approved by the Task Requester and SOC Operations Manager prior to implementation. Any activities that need to be scheduled to meet these requirements shall be coordinated through the Task Requester and SOC Operations Manager. A mechanism shall be put in place to track configuration changes to the firewall rule set. The contractor shall provide support for account creation on the Juniper IVE system.

Back-ups of the critical configuration components of these systems shall be maintained on a weekly basis, and testing of the restore from back-up process and overall redundancy of these systems shall be performed, with results documented, annually.

- Network Configuration Management and Monitoring:

The contract shall provide a configuration management system, which periodically records configuration changes on all Layer 2 devices, and notifies the appropriate personnel when changes are made, and what the exact configuration changes were, with the ability to track configuration changes back to the source of the person making the change.

In addition, the contract shall set up a system that actively polls all SOC Network devices with the intent of providing the following information/functionality:

- Traffic Graphing of all “critical” links (generally aggregate links)
- Alarming when expected capacity on a “critical” link is exceeded
- Alarming when a network device becomes unreachable from the Network Monitoring server
- Notification to appropriate staff when a network device becomes unreachable

A.2.3 7x24 On-call Off Hours Windows System and Network Administration Support

- Provide during non-business hours, which are 07:00-18:00 PST Monday-Friday excluding government holidays
- Provide 7x24 on-call support for all failures of the systems currently supported under the task.
- Provide 30 minute response to the person first reporting the problem for all system failures
- If on-site support is required, the technician will arrive within 2 hours.

A.2.4 SOC Subject Matter Expert

The task will review existing SOC operations for Network and Host based Intrusion Detection and Prevention processes. The task will evaluate current processes in place for the creation and tracking of tickets in the SOC Incident Management System (IMS). The task will evaluate Web existing tools implemented and provide recommendations if required. The task will also look into the Network Detection Authentication and Antivirus services implemented here at NASA. The task will review the processes implemented for the collection and analysis of logs which includes but not limited to firewall, systems, VPN and system logs. The task will provide recommendations on skill sets needed to provide a highly skilled SOC operations center; develop procedures based on industry best practices, and chart a path toward implementing recommendations.

A.2.5 Security Operations Communications Support

In order to enable consistent communications through proper channels for the Security Operations Center, the task will lead the effort in developing and implementing an effective Communications Plan. The task will then work on executing the ongoing communications plan that provides consistent communication to the Agency IT Security customer community.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS2 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property.

The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following:

- Property Assignments
- Property Location
- Unused equipment

A.4 SECTION 508 OF THE REHABILITATION ACT REQUIREMENTS

This Task Order Document (TOD) may contain requirements for products and/or services which are subject to Section 508 of the Rehabilitation Act, Electronic and Information Technology (EIT) Accessibility (ref: <http://www.section508.gov>). The contractor and sub-contractors must propose EIT products and/or services that meet the applicable accessibility standards as identified below or provide justification for not meeting standard.

If known, identify within each accessibility standard identified below, the item(s) which will be obtained for successful completion of this task:

- 36 CFR 1194.21 Software applications and operating systems**
- 36 CFR 1194.22 Web-based intranet and internet information and applications**
- 36 CFR 1194.23 Telecommunications products**
- 36 CFR 1194.24 Video and multimedia products**
- 36 CFR 1194.25 Self contained, closed products**
- 36 CFR 1194.26 Desktop and portable computers**
- 36 CFR 1194.31 Functional performance criteria**
- 36 CFR 1194.41 Information, documentation, and support**

**AMES - Consolidated Information Technology Services 2
(ACITS2) CONTRACT (NNA08AF13C)
TASK ORDER DOCUMENT (TOD)**

This document is used to define, budget, and approve Tasks for work to be performed under the Ames ACITS2 Contract.

SECTION A – TASK SCOPE AND GENERAL INFORMATION

(This section to be completed by Task Requester)

A.1 GENERAL TASK INFORMATION

This Statement of Requirements is intended to (check one):

Initiate a new Task 416.000.2
 Modify existing Task Number _____

Task Title: NASA CTO Support

Planned Start Date: June 8, 2010 Planned End Date: September 30, 2010

ACITS2 SOW Reference C.1.5

A.2 PURPOSE AND DESCRIPTION OF TASK

(Briefly, please describe in general terms the ACITS2 task requirements, including the goals of the task.)

The goal of this task is to provide IT technical, outreach and communication support to the NASA Chief Technology Officer for Information Technology. The CTO for IT at NASA is responsible for NASA's Enterprise Architecture division and for introducing new and emerging technologies into NASA's IT roadmap. The CTO for IT will formulate and oversee a new CTO Council with participation from NASA's mission organizations and field centers that will foster creative ideas and nurture innovation within NASA's IT organization and will also lead a number of IT pilot projects, such as the Nebula Cloud Computing Platform. One of the primary focuses will be determining ways to make NASA's IT environment more energy efficient. The new NASA CTO will also handle NASA's contributions to the White House Open Government initiative.

CTO-IT Technical Support

The nascent Office of the Chief Technology Officer for Information Technology will require concerted and conscientious support as it defines its identity. Due to its developing nature, the requirements below are necessarily broad and will likely expand or contract over the coming weeks as the organization's needs become clear.

- Development of Organizational Strategy and Structure

- Identify Key Interest Areas
- Determine Organizational Goals
- Vision, values
 - Define 3, 6, 9, and 12 month milestones
 - Identify stakeholders
- Development of Web Resources
 - External Informational Web Resources
 - Internal collaborative and publishing Web Resources
 - Evaluate available commercial and open source web applications and frameworks for near term and extended term CTO use
- Development of Technology Evaluations Programs
 - Research and evaluation effort to aid the course of the Agency's information technology roadmap
- Secure and Develop Infrastructure
 - Collaboration and Web infrastructure

CTO-IT Outreach and Communication Support

The task will be responsible for the execution of the CTO's long-term strategic communications plan for external audiences; requirements include:

- Lead all tactical external communications activity for the Office of the CTO.
- Work closely with NASA Public Affairs to ensure that the CTO-IT's messaging reinforces NASA's message and public image and aligns with NASA's CIO organization.
- Identify, monitor and analyze emerging trends in the CTO-IT's areas of responsibility and interest, including, but not limited to:
 - Open Government
 - Cloud Computing
 - Green IT
 - Emerging Networks
 - Enterprise Architecture
 - Open Source Development
 - Mobile computing
 - Web 2.0 Collaboration Tools.
- Inform and advise the CTO-IT's team on issues and events that impact strategic decisions, partnerships and communications.
- Establish and maintain relationships that inform the messaging and communications strategy and enhance the CTO-IT team's ability to meet goals and objectives.
- Work with NASA Public Affairs to craft and circulate a variety of communications for the CTO-IT organization, including content for papers, presentations, articles, blog posts, website content and new media activity (twitter, facebook, etc.).
- Work to integrate disparate messaging efforts surrounding the CTO-IT organization across NASA and to external parties.

A.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)

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